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A WELL-KNOWN architect of Philadelphia, already somewhat distinguished for his resolution and success in enforcing his rights against those who thought to treat him as less courageous members of his profession are with impunity treated, has recently appeared before the Supreme Court of Pennsylvania as the plaintiff in a case brought to recover compensation for plans submitted in a competition which was not decided in accordance with the stipulated terms. The competition in question was an open one, having for its subject the design for a new insurance building, and the plaintiff, in his statement of facts, acknowledges that he understood, before submitting his designs, that he would receive no compensation unless they were adopted. If the comparison and judgment of the plans had proceeded in the usual way, and those of the plaintiff had failed to please the committee, there is no doubt that he would have accepted his defeat with a good grace; but, as it happened, the ground plans and estimates which formed a portion of the set of documents furnished by him were put away in an old safe and forgotten, never coming under the consideration of the committee at all. A perspective drawing escaped concealment, and was inspected by the committee, but the plaintiff contends that this did not adequately show his design, and that, therefore, so far as he was concerned, the promised competition never took place, and he is consequently entitled to compensation for the trouble and expense which he was at in preparing the drawings which were thus wrongfully excluded from consideration. The first trial of the case, before the Court of Common Pleas, resulted in a verdict for the defendant company, and the Supreme Court is now considering it upon appeal.

WHATEVER may be the result to the individual in question, the whole world of architects and artists owes him its cordial gratitude for his spirited defence of rights which concern all of them so deeply. It is partly to the credit, and partly to the discredit, of architects in this country, that they have acted hitherto as their own worst enemies in the matter of competitions. In palliation of the conduct which has degraded the profession here to such a degree that architects alone, of all honest persons in the community, are supposed to do a large part of their work as a speculation, depending for their remuneration upon the caprice or good nature of the one who profits by their services, it must be remembered that with the younger, and especially the more thoroughly trained and ambitious men, the desire to exercise and display their ability is so strong as to overlook considerations of adequate remuneration, while the unsuspecting confidence of youth serves to lend to such affairs the prospect of fairness and honorable distinction which the terms of the invitation may perhaps fail to convey. A few years' experience of the cruel frauds which are, often unthinkingly, practised upon young architects by taking advantage of their enthusiasm and ambition is sufficient to teach caution, but even the elder and more prudent ones are occasionally made the victims of bad faith, and in such cases, as it seems to us, they are much to blame if they neglect to enforce their rights promptly and energetically. The law always supposes that men work to earn money, and expect to be paid for what they do; and will scrutinize as closely as any one need desire the

excuses of those who wish to evade the terms of a contract entered into for the sake of obtaining competitive designs. If money for employing counsel in such cases were lacking, we imagine that there would be no difficulty in raising it by subscription among the members of the profession, all of whom would see how deeply the common interest is involved in the proper regulation of such matters. In our own opinion, the suppression of the degrading farces which here assume the name of competitions, by the absolute refusal of all who claim the name of architects or artists to take part in any contest of the kind except upon terms honorable to all concerned, and the sharp pursuit and punishment of those who offer such terms and then violate them, is by far the most important step which remains to be taken for the advancement of American art. So long as invitations to architects or sculptors issued by incompetent judges, reserving the right "to reject all the designs," or proposing as compensation for the most meritorious competitor anything but the execution of his design at the established rate of payment, meet with the smallest response, just so long will the best men in the profession refuse to compete, leaving cheap trickery to struggle with ingenuous ignorance, to the disadvantage of the latter. With the conversion of competitions into such transactions as are understood by that name in Germany and France all this would be changed. The erection of every public building, and of the most important private ones, would be the occasion for a brilliant display of that ennobling emulation which, more than any other motive, attracts and inspires the best efforts of the ablest men. In such struggles the young, particularly, would gain the greatest benefit, for they, even if they failed, would have profited by the exercise of their highest powers, no less than by the opportunity for comparing their work with that of their rivals, while success would bring to them immediate distinction, assured remunerative employment for a considerable period, and the prospect of a long subsequent period of prosperity and fame. In the interest alike of young and old architects and sculptors, and of the public which employs them, and which certainly has no occasion for congratulating itself upon the results of the present system of competition, it seems to us that that system should be immediately and radically changed. As we have said before, the architects and sculptors have it in their power at any moment to bring about a change; and the sooner it is done the better.

THE most serious conflagration yet occasioned by an electric spark occurred last week in Boston, where, by the accidental contact of an electric-light wire with that of a telephone, the wood-work in a skylight over the main telephone exchange of that city was set on fire, and the flames communicating with the combustible furniture of the operating room below the whole apparatus of the office was destroyed or rendered useless, completely stopping telephone business for an indefinite period in one of the most important districts in the country. It seems that a similar accident happened some months ago in the same place and from the same cause, but the fire was stopped before much damage was done. How long it will be before a much more serious one shall occur, no one can say; but it is altogether likely that it will not be long delayed.

THE number of persons who use the telephone is now so great that any circumstance affecting the regular operation of a telephone exchange is felt as a matter of general and serious importance. Among the other possible sources of disturbance to telephone business, the approaching decision of the contest to determine the priority of rights between the two principal claimants of the invention and the monopoly conveyed by the patent naturally seems the most threatening, and information in regard to the probable result is eagerly sought for. To persons not prejudiced on either side it seems most reasonable that the dispute should be settled by a consolidation of the interests of all the claimants; but this mode of settlement will raise some difficult questions, concerning the public perhaps quite as much as the stockholders of the companies. The most obvious of these relates to the duration of the exclusive monopoly which a consolidated corporation would enjoy. The patent under which the telephone is now made bears the date of 1876, and has therefore a little more than nine years to run before the enormous profits which its owners draw from the public will

cease, and the invention will be thrown open to all the world. If, however, the original patent should next month be declared invalid, and a new one should be issued to the contesting party, to run for seventeen years from the date of its issue, the original company, by joining with its successful opponents, would have the duration of its privileges nearly doubled, and its opportunities for extorting money under the monopoly probably at least quadrupled.

WHETHER such an arrangement for enriching, at the public expense, two monopolies instead of one, would be permitted under the present patent laws, we cannot say, but while it is difficult to see just how it can be prevented, it is equally difficult to see why a succession of pretended claimants might not, in the interest of dishonest men, serve to extend a valuable patent to an indefinite duration. The other solution, that the date of the patent should not be changed, but that the present holders, if defeated, should account to their successful rivals for profit during the past eight years, might involve great annoyance and loss to both claimants without, perhaps, any immediate benefit to the public. Another question, quite as interesting to the community as to the holders of telephone stock, relates to the contract made by the present telephone company, binding itself not to interfere or compete with telegraph business during the term of its monopoly. The result of this contract has of course been to discourage attempts at regular communication by telephone between distant points. It is well known that with the help of improved apparatus conversation has been easily held between New York and Chicago, a distance of about nine hundred miles, and between Boston and Baltimore, which are nearly four hundred and fifty miles apart, but these experiments, successful as they have been, lead to no result, the present range of communication about the large cities being, if anything, more restricted than it was several years ago. Although the present telephone company can hardly be considered at fault in this, as it were, sitting down upon a great invention in such a way as to prevent any one from developing or improving it, the world in general would be quite justified in exhibiting a little impatience to see the restrictions removed, and telephonic service permitted to extend itself in accordance with the demand for it. With a new company, free from such embarrassing contracts, in possession of the business, we might soon hope to see communication made as easy between Boston and Philadelphia as it now is between New York and Harlem, and, as every business man knows, the value of the rapidity of question and reply which the telephone gives increases with the distance through which the message is sent. A direct consolidation of the rival telephone companies could hardly be effected without subjecting both to the obligations incurred by the older one, and thereby losing the great advantage which the other, free to extend its lines at will, would possess; so that an agreement, leaving to each company the privileges which it can fairly claim, is perhaps more probable than a complete coalition.

THE farmers of California are holding public meetings for formal rejoicing over a decision of court restraining by perpetual injunction a certain hydraulic mining company from destroying the fertile lands of the lower Sacramento valley by letting loose upon them the gravelly debris of its mining operations, which buried the fields under sheets of sand, and caused destructive inundations by choking the streams. This particular contest was regarded as a test case, and the decision, if confirmed by the highest court, will result in the suppression of hydraulic mining operations except on a small scale. It seems to be quite time that some such action was taken. Already many thousands of acres of the most fertile land in the world, capable of supporting a great community for ages in peace and happiness, have been wantonly destroyed for the sake of putting about a barrel and a half of yellow dust into the pockets of a few greedy speculators. It is the more surprising that such operations should have been permitted to go so far, since in California, which occupies the position of a fertile strip on the border of a desert, water for irrigation, as well as for internal navigation, is of special value, and the prospect already is that, independent of the irreparable injury to fertile land, the work of restoring the channels of the streams obstructed by mining debris, so as to render them again fit for the passage of boats, which must be paid for by taxation of the whole country, will exceed in cost the value of all the gold which hydraulic mining has yielded to private individuals.

A GOOD deal of comment has been caused among builders of late by some accidents which have occurred through the use of Portland cement under unfavorable circumstances. The present fashion of carving the brickwork of house-fronts has led to a change in the mode of putting up such fronts, the facing, where much carving is intended, being generally laid in clear Portland cement, to prevent the movement of the bricks under the operation of carving, which is almost inevitable with brickwork laid in ordinary mortar. The backing, in either case, being usually laid in mortar containing a certain proportion of lime, settles more or less, often forcing off the facing, which is made by the cement matrix as rigid and incompressible as a stone. If the Portland cement is underburnt and quick-setting, as frequently happens, the joints of the facing swell slightly, while the backing settles, thus greatly aggravating the evil, and more than one richly carved front has been nearly ruined in this way. As many of our readers are likely to have to deal with such cases, it is well to remember the test for underburnt and expanding cement, which consists in filling a bottle with it, made into a thick paste, and stopping tightly. After the setting, which takes place in a few days, the bottles containing the objectionable samples will be found to have burst by the expansion. In order to prevent this effect, which has proved very destructive in certain instances, it is usual in England, where Portland cement is employed with great skill, to expose all the cement for a given piece of work to the air for a week or more, by emptying the casks into a heap on the floor of some unoccupied room. The incipient slaking thus induced, while it may retard the subsequent setting of the cement, does not injure its quality, and partially or wholly removes the tendency to swell after use in the masonry.

NO doubt many of our readers, as well as ourselves, have been occasionally puzzled at hearing the names of important towns in the South which were quite new to them, and appeared also, on investigation, to have been equally unknown to the compilers of the geographies in ordinary use. A partial explanation of this phenomenon is given in the *Atlanta Constitution*, which gives an interesting history of some of these new towns. One, now among the most famous, though not the largest, was founded ten years ago by two gentlemen of moderate fortune, who bought several thousand acres of wild land and a mountain of iron ore in Northern Alabama. They first built a furnace for making charcoal iron out of their ore, and then commenced the construction of a town about it. They divided their territory into lots, graded the streets, laid out parks, built stores, hotels and a railroad station, and called the place Anniston. Their iron business prospered, and with it their new city, which has now more than five thousand inhabitants, and is rapidly increasing in wealth and population, and rivals in general reputation the most distinguished of the Southern cities. Another company of gentlemen, a little before the founding of Anniston, bought a tract of land in the same region, but about sixty miles distant, laid it out in lots, and called it Birmingham. This town has had a career of similar prosperity, and now contains nearly fifteen thousand inhabitants, while its projectors find the value of their original investment increased about twenty times. Still another town, laid out five years ago on the site of some old plantations in a favorable situation on a new railroad, has now a population of eight thousand, and a valuation of several millions.

IT seems that the important question as to the termination of the façade of the Cathedral of Florence, which was submitted to the votes of the inhabitants, has been decided in favor of the "Basilican" style, which consists mainly in the substitution of a horizontal cornice for the usual Florentine triple gable. The general balloting first proposed seems to have been found, if not unsatisfactory, at least a tedious process, and in the end the decision was, by unanimous consent, referred to the Artists' Club of Florence, which, by a vote of eighty-eight to eleven, advised the abandonment of Signor de Fabris's design, and the completion of the front with a horizontal cornice, as being "more in accordance with the general design of the building." It is impossible at this distance to judge of the matter, and the Cathedral will be beautiful enough either way, but we can hardly help regretting that the more picturesque and characteristic treatment could not have been carried out on the grand scale, and with the splendid accompaniments, that the situation would have permitted.

"THE OLDEST CITY."



northeast. Fifty miles south of the outlet of the St. John's River, the flood-tide flows through a gap in the Florida coast, and spreads away inland on either hand in a double system of vast creeks, whose course, through a waste of marshes, is parallel with the sea-shore.

At the meeting of this mighty creek system is an old city, now hardly accessible from the ocean—Saint Augustine. The dark walls of its citadel divide the in-sweeping ocean current, turning the waters aside to north and south; to northward, to eddy around a point and join the flood that spreads, uncaired for, over a waste of bay whose irregular shores by degrees draw closer, narrowing the bay to a river, which extends far north in line with the sea-coast.

To southward of the old fortress man has taken some thought for the tide. Here it cannot fret away its banks at will, being held in check by a sea-wall, which protects a street open to the water, and presenting a straggling row of houses, some old and queer, some of modern date and commonplace fashion, the old and new mingled at random. Thus, at the mouth of the Matanzas River, Saint Augustine presents to the bay its bold front of bastioned and turreted fortress, sea-wall and river-street. But rarely does one gain a first view of the city from this quarter; for, at the mouth of the short bay that serves as outlet for both rivers, is a shoal bar on which the sea beats heavily: to enter the harbor by ship from the ocean is therefore difficult. By steamboat up the placid River St. John's to Toco, thence by railroad across fourteen miles of flat country is the established route giving easiest access to Saint Augustine, and by this way the city is approached from the rear.

The railway station is some distance outside the city limits. To the visitor, as he leaves the station and turns his steps seawards, is presented a simple prospect. A half-mile width of marsh, stretching on either side to the horizon, except where, to northward, a few houses break the sky-line; a creek, filled with dun water at high-tide, and an empty channel of mud at low; a straight road, protected on both sides from the wash of high water by a low, timber-capped brick wall; this treeless road crossing the marshes, over the creek by a bridge, crossing the marshes again, losing at last the white glare of its sun-baked length in the shade of a grove of trees, beneath which it disappears. This grove is a mile in length, and at intervals white house-walls show through it, and a few low cupolas appear above the tree-tops—all pleasant to look at, and a relief to the eye after a survey of the surrounding desert of mud and water. A relief to the body as well, after one has traversed, of a hot day, the half-mile of unshaded highway, to pass under the low-hanging boughs of the moss-draped oak-trees which grace with their shade the entrance to Saint Augustine.

He who enters the city by this, the usual way, if keeping straight on for a few hundred yards, reaches the Plaza. This is a plat of ground one hundred and fifty yards long by fifty in width, and containing, as its principal features, two monuments of simple design and a whitewashed structure made up of stone piers supporting a low, gabled roof of wood. One of the monuments commemorates the promulgation, in 1812, of the Spanish Liberal Constitution; the other is in memory of the soldier dead, victims of the late civil war. This oblong plat of ground is enclosed by a hedge, the gaps in which are filled by sections of fence, with entrances guarded by three posts, set to make a maze through which bipeds may dodge, but by which no cow nor quadruped of like size may enter. Thus guarded, and shaded by trees and shrubs of a semi-tropical nature, the Plaza affords to the citizen of Saint Augustine a chance for that slumberous lounging out-of-doors which fills, in large degree, the measure of his content. Curiosity as to the source of an unpleasant smell hanging about the centre of the Plaza is satisfied by tracing the odor to a rusty iron pipe projecting four feet above ground, throwing from its top a tiny spray of water, and provided with a faucet. This is the "famous sulphur spring." Its lukewarm waters are healthful as a beverage—thus an inscription near by asserts, an assertion needed to refute the evidence of one's nostrils, which prejudice him to the contrary.

Facing the public square on its north side is the cathedral, built

AT the extreme north of the east coast of Florida, the Atlantic Ocean receives the St. John's River, a broad, shallow stream, almost currentless, its brown waters buffeted back and forth at its mouth by the ebb and flood of the ocean tides. Lying as it does nearly parallel with the sea-coast, separated from the sea by from ten to thirty miles of country, the St. John's forms, through Florida, a waterway of four hundred miles from its source in the southeast of the State to its mouth in the extreme

by the Spaniards during the close of the eighteenth century. Its front is interesting because of the curiously-outlined screen bearing



the peal of bells. Subsequent investigation of the interior finds it a square room, with attempted decoration in color. To this part of the work justice tempered by mercy may accord a charitable silence.

The pavilion before-mentioned, said by some to be a whilom slave-market, fills part of the east end of the Plaza, and he who has entered the city by the way just described, emerges from the pavilion to gain his first view of the surrounding river-region—a view comprehending wide creeks and broad bay; right ahead, the low marshes of Anastasia Island; over them, a few miles away, the long bar on which the green sea whitens in tumbling surf; northward of the bar, the low, storm-furrowed sand-hills of North Cape; southward of the bar, the dark swell of the higher land of Anastasia, rising out of the marshes and out of the sea; while the tall tower of Anastasia light-house, its noble outline marred by the spiral bands of black and white which mark it, rises with startling contrast out of the dreary flatness of the landscape.

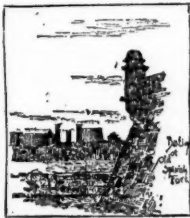
Glimpses of this scene have served to draw the stranger at first directly to the waterfront, spite of the allurements presented by sundry narrow and shady side streets, which at intervals cross



King Street, the highway into town. A growing wish to explore the narrow lanes will before long entice the new-comer to retrace his steps, and turn into the most inviting of these by-ways. Of these, some are twenty feet in width, some fifteen, some ten. The houses are often set out to the street line, and their overhanging balconies are picturesque, and cast a pleasing shade. The roadway is of sand or shells; side-walks there are none. Where the houses are set back from the street, a wall some eight feet high keeps the street line, and so the garden intervening betwixt highway and house is screened from the gaze of the passer-by. A plank gate, armed with a knocker, gives entrance to him who has a right within; while, from upper windows opposite, one may look freely over the wall-top into his neighbor's garden, but the casual passer-by must be content with sight of the branches of shrubbery peeping over the battered gray walls, or of the more lofty sago-palms looming above.

Just as, elsewhere, many-paned windows of purple-tinted glass are esteemed as precious tokens of good birth and high breeding, so here, perhaps, there is a mark of distinction among townfolk in the possession of one of these ancient garden-walls, giving, as it does, so exclusive an air to the estate thus guarded. In many cases these walls, falling into decay, have been replaced by paling fences, through which the pleasant gardens may be seen.

There is evident abundance of masonry of a strange sort, seeming much like artificial stone. Inquiry reveals the nature of the material, so important in the building economy of the Saint Augustinians. It is coquina, a conglomerate of shells and shell-lime, got from quarries on Anastasia Island. Easily cut out in blocks, and at first yellow in color, it hardens and turns gray by long exposure to the air. The best old houses, the garden walls, the towers of the city gateway, the fortress, are built of this ocean-made concrete; it is as conventional here as is red brick in old Boston. Many of the coquina houses are stuccoed, since the porous shell-stone, if unprotected from the weather, absorbs dampness.



St. Aug.
above
Saint
Augustine.

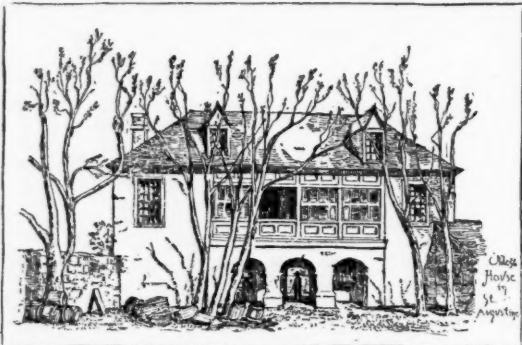


Were it not for the boldly-projecting balconies, the street fronts of the houses would be severe in aspect. However, a more intimate acquaintance than that afforded by the first walk through the streets, reveals that the most interesting feature of each dwelling is the court-yard or garden, bounded either on two or three sides by buildings, the garden-wall completing the enclosure. The main house has



often an arcade of two or three arches in the first story, while the kitchen wing has balconies in plenty; the wall of its second story, too, forms a deep overhang, so throwing the windows of the house itself back into shadow. The street wall, which was, to the stranger outside, an aggravation, presents to him a different aspect when viewed from within, since it gives a sense of sacred seclusion. After enjoying for a while a quiet stroll among the palms, bananas and other tropical growth usual in the Saint Augustinian's garden, one is ready to aver that the sense of baffled curiosity while abroad is more than compensated by a comfortable privacy at home, and that a high-walled garden is a desirable domestic institution.

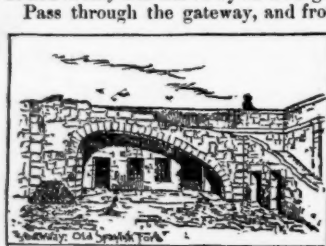
Over the arcade of the main house there is often a latticed balcony, showing externally as a big area of slatted blinds. Within, the



lattice affords protection from the sunlight, while allowing the breeze to sift through, making cool comfort—something to be appreciated after dinner, when he who loves his ease—and what Saint Augustinian does not?—will stay indoors. During early afternoon the hot sun shines on streets deserted: evidently the siesta is the rule.

There is nothing in the interior of the typical house to distinguish it from the average New England mansion of the last century. There are the plainly-finished square rooms of generous size, with windows deeply recessed, and dingy brick fireplaces framed by simple wooden mantelpieces, very broad of frieze. A musty odor, much like that of the herb-stocked garret of an old farm-house, pervades houses and streets alike. It is a decided characteristic, worthy remark, and adds much to the general air of antiquity. Perhaps it comes from the coquina.

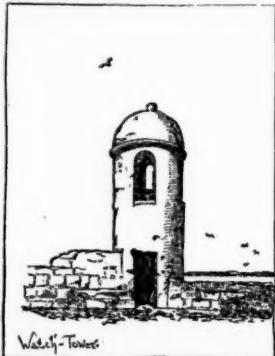
Of vehicles, the two-wheeled drays, drawn by mules or donkeys, and used for traffic, are quite in accord with the spirit of the place; carriages, of which there are some few in town, seem out of harmony with the surroundings. But generally people walk, the most fitting way of getting about in this odd assemblage of some twenty streets comprised within a limit of half a mile by a mile. Rambling thus, one is sure, in the course of the first half-day here, to reach the north entrance of the city, a gateway flanked by two posts of coquina, gray and weather-beaten. The gates themselves are gone; only one twisted iron hinge is left. At the foot of each post is a curious domed sentry-box closed by an iron grating.



Pass through the gateway, and from the road is gained a view of the structure whereon the Saint Augustinian bestows a most self-complacent pride—the old Spanish fortress. This dark, battered citadel excites interest by its present self, or by virtue of its past history. With it are associated weird tales of skeletons found in walled-up dungeons, and other tales, less wild and more

A moat, thirty feet in width, surrounds the fortress, an outwork protects the entrance. Once the moat was crossed by a drawbridge, which is now replaced by a makeshift structure of plank, giving access to the portal, over which the Spanish coat-of-arms is carved. Beyond is the court-yard, nearly two hundred feet square. None of the forbidding aspect of the exterior here; for the walls are pierced by many windows and by doors; traces of pilasters and of a rude entablature are evident. At the southeast corner a stairway gives access to the *barbette*, which furnishes a promenade thirty feet in width. At either of the four angles of the fortress this promenade is widened by a bastion, and three of these bastions possess sentry-boxes. The northeast sentry-box rises to the dignity of a two-storied tower; from it the vision sweeps over the lonely sea, the light-house brooding over the marshes, the distant sand-hills, the city, quaint and still, the winding rivers, and the dark pine-groves of the inland country.

In our Northern land, where the energetic Anglo-Saxon is busily subduing the earth to himself, the influence which might hover round the scenes of old-time strife is swept beneath the surface by the rush



of thought for olden times. There is the memory of battles fought, but not the scenes that served as settings for the conflict; for where once farmers faced trained soldiery, and where "troops marched down to their boats on the shore," now furrowed farms, paved streets, dwellings thickly studded, shops, warehouses and long wharves have wrought an utter transformation. The face of the land bears the impress of the present; it is not set in the lines of years agone. But to one who looks from this old watch-tower, the silent landscape seems imbued with a power immutable. Here man is no lord of creation, but a dweller merely by sufferance, because of earth's mercy. The land, just as it is, having kept watch through centuries, might well give assurance of the truth of history's memories, as they flit through the mind of him who gazes. The woods, the flood, the sky, seem indeed to say: "Yes, these things have been, for we have seen them."

Once, on an Easter Sunday, Ponce de Leon, seeking the Fountain of Youth, sailed into a harbor strange to him, landed, and gave to the land that welcomed him the name of Florida. Here, beneath, is the very bay that harbored him. That was nearly four centuries ago; but for aught that the empty bay, the white breakers on the bar, or the lonely sea can indicate, it might have been but yesterday, it might be to-day. At this very hour let the horizon be broken by a speck which should develop in the offing as a strange bark with lofty stern and sails of many hues, ready to drop anchor in the harbor, and disembark its crew of bearded and big-booted Spaniards armed for war, it would not be a marvellous thing, it would accord with all the scene. Frenchmen and Englishmen have shed their blood in wrestling with the Spaniard for the mastership of the little knoll of habitable ground whereon, amid this wilderness, the city stands, quite in accord, too; this vast flat waste is just such profitless domain as men are often wont to fight about, with no other end than the getting of what my neighbor has and I have not. Here Indian warfare has filled the air with alarm, sending the townsfolk flying to the fort for shelter. To-day, stealthily gliding figures might hover at the shadowed edge of those sombre forests; it would not seem quite strange, the scene would bear it out.

But the landscape which harmonizes with the remembrance of past happenings, lends itself in some measure to the uneventful life of the present. Here is the town beneath, Saint Augustine as it is to-day, calm in the peace which is its portion after centuries of strife. Aside from its shell of walls and roofs, think of the town by considering its people. It is like an old veteran enjoying the reverence due him for the hot valor of his prime; or like a queer, good creature whose ancestors were men of might. Fifty years ago a frost destroyed the fruit-trees in the city; few have been planted to replace them. "This freeze deprived the majority of the people of their only income. The older inhabitants still remark that the freeze of 1835 cost most of them their all." Thus says the town chronicler to-day, in all seriousness. A citadel to give dignity to such inanition!

Happily there has come to the inhabitants a recompense for the loss of their "all." Pilgrims from the North, worn by hard work at home, come here for rest. At the cost of putting his own on exhibition, and, worse, disfiguring it by box-like boarding-houses, the Saint Augustinian gains a profitable living off the record of the past, and the present virtue of the climate of his city. Yachting is a prevalent pastime during the winter, and the United States soldiers quartered at the Government barracks add to society the enlivening influence afforded by shoulder-straps, brass buttons, and a military band.

So the people exist pleasantly. Summer is almost perpetual.

The east wind rises with the sun, blows freshest at noon, and falls to



a calm at sunset. Through the still night, when the stars shine with wondrous brightness, the air is heavy with dew, and its dripping is heard in the eaves-troughs. Sometimes in summer it is very hot, when the east wind fails and the land-breeze blows. Sometimes it rains. At about six, with little variation, the sun sets. Of an afternoon, watch, from the ramparts of the citadel, the sunset glow die out of the western sky; then leave the old fort, and walk along the sea-wall while the tide is in. There is no breath of wind; a few people, before the houses opposite, take the evening air and talk in gentle tones. In the swift-falling darkness the stars come out quickly; the reflections of the brighter ones hang in the depths of the river. From seaward sounds a deep, hollow ring far away; it is the never-ceasing roar of the surf on the bar; unnoticed through the day, it is plainly heard at night, its distant turmoil making the peace around seem deeper. The hail of the sentry sounds from a distance; the lamp of the light-house blazes beneath the star-lit sky. All is perfect rest; a sacredness is in the very air. The Spaniard was right; his city was worth fighting for.

C.

THE RECENT NEW YORK LOAN EXHIBITION.



Company, is to be credited with its success, and so with no small share of the proceeds of the enterprise.

The rooms of the Academy of Design were filled to overflowing, down stairs and up, and were far too small for the multitude of good things offered to the committees. Selections were judiciously made, and there was a very small percentage indeed of the unworthy or uninteresting objects commonly contributed by mistaken amateurs to such collections. The general arrangement also was a great improvement on former similar exhibitions,—in New York at least.

Less regard was paid to a merely decorative effectiveness of result, and more to an orderly and sensible arrangement of the various exhibits. Each class was placed by itself and divided into subclasses as far as possible, and, as I have implied, the catalogue entries were made as instructive as possible; one could really gain some definite knowledge with regard to the various art works shown, as well as a mere momentary delight for the eye.

It is of course impossible, in the brief limits at my disposal, to note everything of interest that was shown, or even to give definite mention to each important class.

In the North Room was arranged a large collection of antique fans, some of the very greatest beauty. Among the modern fans, kept by themselves, there were also examples that could not have failed to instruct any would-be painters of like objects who might study them,—fans signed by Leloir, Detaille, and other famous names. In the same room the laces were also a most beautiful and instructive feature. The silver-ware was less remarkable, but the antique watches and jewelry and old ivories were of great beauty; especially the Oriental and Egyptian jewelry, belonging largely to Mr. Prime and Mrs. Morgan, could hardly be over-praised. From the periods of Louis Quinze and Louis Seize there were also many valuable specimens, and a large enamelled and jewelled chatelaine (French, of the time of Francis First) must have been a veritable revelation to many who, familiar only with the work of the modern jeweller, did not know how high a degree of truly artistic beauty might come from the hands of a goldsmith who was an artist also.

In the corridor we found the china—not as prominent a part of the exhibition, fortunately, as has sometimes been the case; also some Tanagra figurines, and some beautiful specimens of the armorer's art, Oriental and Renaissance.

The West Room was devoted to Oriental art, and contained some extremely valuable specimens, not only from Japan and China, but from India as well.

The East Room contained the tapestries and embroideries, which were, I think, the least satisfactory part of the exhibition. Mrs. Wheeler's work was well represented, but did not look its best under a strong top light, very different from the illumination for which it had been planned. There were but few examples of ancient workmanship, and the most novel part of the collection consisted of a series of early American embroideries, ranging from samplers to elaborate framed pictures, executed at or before the beginning of the century. Of course they were not important as works of art, but they were very curious and sometimes of historical interest, and it should be noted that there was about them all an accent of naive refinement which is certainly lacking to much of the more "artistic" work of our day.

In the Northwest Room were shown some very splendid old misals, chiefly the property of Mr. Bouton; a large number of old prints, among them admirable examples of Rembrandt's etchings; and a small and disappointing collection of American stained-glass. Mr. La Farge was not represented at all, and the only very good thing was from Mr. Tiffany's atelier.

In the downstairs rooms was an interesting collection of costumes, old and modern, displayed so far as possible on lay figures; also a large collection of American aboriginal art, which must have been very welcome to the public, since this art is more familiar in book or magazine illustrations than in its actual objects.

The large South Gallery was filled with pictures, and these, after all, were the main feature of the exhibition. They would have been so, of course, had they merely been a miscellaneous collection of good works of various sorts, such as one usually finds under similar circumstances; but they were something very different, and, I am sure, something very much better. The management of this part of the exhibition was given into the hands of Mr. Chase and Mr. Beckwith. These gentlemen, instead of merely asking for contributions in a general way and making the best of what the lenders chose to give, themselves selected the works they most desired, and they selected them along one harmonious line, instead of trying to show examples of all the phases of modern art. For this course they have been criticised by some observers, who were either out of sympathy with the sort of work selected, or who wished for the usual motley show. It has been said that as the main object of the exhibition was to attract as large a public as possible, something should have been provided to suit every taste, and that the works of "popular painters," such as Bouguereau, Gérôme, and their like, should first of all have been supplied. The committee did not, however, proceed from this point of view. Perhaps they were mistaken in so thinking, but it can hardly be counted against them that they *did* think the public wished to see the best things that could be got together. If the public has been disappointed, it is, it seems to me, its own fault, and not the fault of those who worked so hard and used so much discrimination for its benefit. Those who certainly were *not* disappointed, but who feel as though they owe Mr. Chase and Mr. Beckwith a debt of considerable magnitude, are the artists, art-students, and real art lovers of the city. They have delighted in this exhibition as they have never before in any other; and well they might. It is little to say that no such beautiful and instructive collection has ever before been brought together in this country—no other composed so exclusively of really first-rate works, and arranged so that each work helped its fellows, instead of hurting them, as is always the case in a more mingled exhibition. When I say first-rate works, I mean both works by really first-rate hands, and works thoroughly representative of those hands. I sympathize with all lovers of the best modern art who failed to see this collection. Certainly the occasions must have been very rare in Paris when such a one has been collected, and certainly in no other city but Paris, save in New York, could such have been got together. Only in the private—not by any means in the public—collections of the French capital are there so many good works by these same masters to be seen. The times are seldom when they emerge into public view, and I can imagine that more than one art-student of Paris has never had such an opportunity as was here afforded to the art-students of New York.

When I said that the pictures were selected along a single line, I did not speak exactly. Many lines were in fact represented, but all were lines in essential harmony with each other. The first thing one noticed on entering the room was its splendid unity of effect, so different from the spotty, mottled, distracting appearance of the average gallery wall. The decorative result, taken as a whole, was as fine as though the pictures had been placed with that sole end in view. The second point one remarked, perhaps, was the low tone preserved throughout; and the next, what an immense amount of the most splendid color existed with it. The works of the great French landscape painters of the first half of the century gave the key-note to the collection. Michel, Millet, Corot, Diaz, Daubigny, Dupré, Rousseau, Troyon and the rest were represented with much fulness, and sometimes in almost unrivalled examples. Together with these were Monticelli, Vollon, Delacroix, Roybet, Ribot, Couture, Courbet, Henner, Bastien-Lepage, Tissot, and many other Frenchmen of the like quality. Then there was an admirable selection from that new Netherland school which Mr. Cottier should have the credit of having introduced to us: Maris, and Mettling, and Mauve; then we found Cazin, and actually Manet and Degas. Such a list as this cannot be called narrow. It was narrow in embracing only the best modern work, but broad enough, surely, in the kinds of this which it included. The most striking lesson taught by a perusal of the names

and a comparison of the canvases, was that an essential unity, not only of aim but of effect, does underlie the chief phases of modern art, including such widely-separated individualities as those of Michel and Monticelli, of Courbet and Manet. To make good art has been the first concern throughout; not to make literature or morals or mere records of one sort or another. And the expression of personal individuality has been a chief factor in the making of this good art—individuality of feeling and individuality of technique as well. These facts mark out the true course which artistic effort should follow, but prove (when we examine the separate works by which collectively they are demonstrated) the very wide limits within which that course may be pursued. Even the slighter examples of Fortuny and Boldini and their brethren, which were also exhibited, did not strike an alien note in the general concord.

It is interesting to find that though one hundred and ninety-five works of this quality were hung, only twenty-two owners' names appear in the catalogue. Some of these, moreover, sent only two or three minor specimens. By far the largest proportion of the chief pictures were loaned by Mr. Cottier, Mr. Williams, and Mr. Erwin Davis. The most famous collections of the city, such as those of Messrs. Astor and Belmont, of the two Vanderbilts, of Mrs. A. T. Stewart, and of the late Robert L. Stuart, were not drawn upon at all. Nor were the collections of Brooklyn, which (especially Mr. Seney's) are extremely rich in works of the great French landscape school. The pictorial wealth of New York was thus proved, not only by the pictures present, but by the treasures which lay in reserve behind them.

To speak in detail of the works exhibited would take me far beyond my limits. I need only, indeed, give a bare catalogue of some of them, since these are among the most famous of modern productions. Corot, for example, was represented by twelve examples, almost all of the highest excellence. Chief among them were Mr. Cottier's "Orpheus," and the equally famous and almost more beautiful "Danse des Amours," belonging to Mr. Dana. He who for the first time saw such canvases as these, learned for the first time what Corot really was—a powerful as well as delicate master, a splendid as well as subtle technician. The committee tried in vain to secure Millet's "Sower," which Mr. Vanderbilt has recently acquired, and which would have been the star of the exhibition; but lacking this, Millet was still admirably shown by eight works of very varied kinds. His later, more familiar phase was exhibited in such canvases as the "Wood Chopper" and the "Quarrymen"; but still more valuable were several earlier works, showing him under an aspect less well known to our public, as a painter of more "classic" subject matter. The famous little "Susanna" revealed a depth of color, and a strong suavity of handling which are missing from most of his peasant subjects. The magnificent, vague yet imposing, and splendidly-colored sketch of "Hylas and the Nymphs" was even farther removed from what we consider his typical manner; but most marvellous of all was a nude study—a woman lying on a couch and seen from the back—which deservedly held the place of honor in the collection. Could this exquisite work, as splendid as it was original in color and in treatment, be from the same hand, we asked ourselves, as the ruder art Millet devoted to his ruder themes? It was a veritable revelation of a kind and degree of purely artistic power which could never be suspected did we only know Millet as he chose to make himself in his later years—a painter more concerned with the sentiment than with the technical perfection of his work, and treating subjects which, however high a place we may give them from the standpoint of poetry, of feeling, of intellectual force, were certainly less well adapted than this simple nude figure to display a painter's pictorial power, properly so called. Mr. Davis's collection is probably the finest on this side of the water, but with all its treasures it can contain none of greater rarity and greater intrinsic worth than this.

The small Delacroix—a study for his famous "Entombment"—was a marvel of color and force, very simply painted, not over careful in the details of its drawing, but almost overshadowing by its splendid vigor, and by the very simplicity through which that vigor showed, everything else about it.

Another of the great pictures where all were admirable was Courbet's famous portrait of himself playing on the violoncello—which, by the way, will be found reproduced in the *Century* for February. This was the man whom his contemporaries called "no artist"—yet here was a picture which might safely be set amid the greatest portraits of the greatest age. In technical perfection it might suffer a little—a very little—by the contrast; but in fervid, truthful, individual feeling, and striking expression of character it might kill everything except, perhaps, a Rembrandt.

It is curious to note that the committee has been attacked on more than one side for admitting the work of Degas and Manet into such society as this. It must have been a surprise to be so reproached, for Mr. Chase and Mr. Beckwith were doubtless justified in believing that they would be widely thanked for this very move. No artists, that is to say, have been more persistently talked about of recent years, and none are less familiar to our public. Gratified curiosity, if nothing else, should have ratified the course of the committee. It would not be so wonderful, perhaps, if the average visitor has found nothing gratified but curiosity in front of these pictures. Beauty, as he conceives it, is the first thing he looks for, and of sensuous beauty these pictures had nothing. They were frankly ugly in subject matter and arrangement, and their technical beauty

was of so peculiar a kind that it is not strange no one but an artist could appreciate it. Degas was represented by a sketch of some ballet-girls in very vivid pink frocks, which was a superb bit of brush-work, but certainly nothing more. Manet signed a boy's portrait, which had more attraction of other kinds; but the chief picture of the class, also by Manet, was a large full-sized portrait of a woman in pink, with a parrot on a stand beside her. The model was very far from beautiful, but not uninteresting in what a painter calls *character*. The color, also, was not beautiful in traditional ways, but had much charm for those who can consent to see for a moment with the eyes of a peculiarly-endowed painter instead of with their own; and the handling was of the greatest interest to all who care at all for painter's work as such—masterly in its way, and that way quite peculiar to this one man himself. I repeat that no one would have wondered had the public disliked these pictures, but it ought, at least, to have looked at them respectfully—which it did not—since they are the products of an incontestable if aberrant talent; and it ought to have been grateful for a chance to see really representative work from a hand so well known by report. Cazin did not attract nearly so much attention, being an original of a less noisy sort. But it is a pity this was the case, since he has hardly been known to us, and since he is rapidly coming to be acknowledged as one of the first among the very few really original, and at the same time poetic painters of contemporary France. Vollon was represented by a rather unusual example, a lovely small portrait head; by a large farm-yard scene; and by a masterly example of his most characteristic mood—a large still-life, magnificent in tone and color. Mettling was shown by a number of portraits of great variety, and the profoundest interest. But it is impossible even thus cursorily to note the chief works on the wall. I will only repeat that no such collection has ever been gathered together in this country before—none so important by reason of the individual excellence of *all* the pictures, and none half so important in its teaching as to the tendency, character, results and rank of the best modern effort. From what I hear, by the way, it seems that Mr. Chase and Mr. Beckwith were not allowed to have, by any means, all the pictures they wanted most. It is all the more remarkable that the collection was so good, and that no one could have imagined from it that they had been refused in any quarter.

I must not omit to speak of the collection of miniatures which, next to the pictures, seemed to me the most valuable part of the exhibition. Many came from home sources. Some of these were interesting on account of their originals, others on account of their exquisite beauty of workmanship. Then, Mr. Josephs, of London, brought over for this special occasion his famous collection of seventy-six miniatures, from the hands of Cosway and his great contemporaries. Since I had not myself the time to examine these works as they should have been examined, I can only say that they were of absolutely unique interest to us in this country, and hope that Mr. Josephs will afford us another opportunity of seeing them by themselves in rooms less contracted and less crowded than those of a general loan exhibition.

I am sure, in conclusion, that the *American Architect* will be glad to give its endorsement to the course adopted by the managers of this exhibition in opening its doors on Sunday at reduced rates. The Academy authorities, and one or two of the members of committees objected to the idea, but the director, Mr. Hopkinson Smith, and a large majority of managers fortunately carried their point. Protests were positively made to the police, in which this exhibition was classed (with various Bowery resorts) among "variety shows," which the said police were called upon to close. It was even anticipated that Mr. Smith and the ticket-takers might be forced to languish in dungeon cells if they persisted; but a large body of managers stood ready to take their place, and no such fate was, in fact, inflicted upon them. Many of the managers, and many other persons prominent in "society," made it a point to show themselves at the Academy on Sunday, and thus express their approval of the innovation; but the large majority of the great crowd of visitors, which filled the rooms to suffocation—there were nearly six thousand on the last Sunday—came, it should be noted, from the very class which the movement was designed to draw. They were evidently artisans, mechanics, clerks and others who were unable to attend during the week, and who might be expected to profit in a quite peculiar way from the objects they inspected. A large number were evidently studying some especial sort of work, not merely gratifying a general curiosity or interest; and sketch-books and lead-pencils were not an infrequent sight. We may, indeed, be glad of such satisfactory proof that it is legal to hold such exhibitions on Sunday, and that the class for whose benefit such opening is desired, will profit by an occasion if it is afforded them. Mr. Thomas Clarke's picture collection—which I hope to describe in another notice—was also open on Sundays as well as through the week. M. G. VAN RENSSLAER.

THE ILLUSTRATIONS.

AMERICAN INSTITUTE OF ARCHITECTS, SECRETARY'S OFFICE,
NEWPORT, R. I., JANUARY 3, 1884.

In accordance with a resolution of the Seventeenth Annual Convention of the American Institute of Architects, passed August 30, 1883, I send herewith a design for an architectural society's building, with an explanatory key, prepared by Mr. John Moser, of Anniston, Alabama, and exhibited by him at the above Convention.

For the benefit of those of your readers who are unfamiliar with the

proceedings of the Sixteenth and Seventeenth Conventions of the A. I. A. I will preface Mr. Moser's paper with a brief explanation of the conditions under which his unique and eclectic design was prepared.

The Board of Trustees, in pursuance of a resolution of the Sixteenth Convention, requested such members of the Institute as felt disposed to do so, to present at the Seventeenth Convention designs for an architectural society's building. To this request only one member responded, Mr. John Moser, who presented the accompanying design, describing it as an attempt to show how a typical national style of architecture may be founded upon, and combine in one historic façade, all previous and contemporaneous systems of construction.

With this end in view, Mr. Moser prepared an ingenious design, combining well authenticated details selected from representative buildings of all ages. In his "historic façade" the various systems of construction follow each other in regular sequence from the prehistoric pier and lintel of rude stone to the latest phase of nineteenth-century design — the Queen Anne gable. The design is of interest to the student as a theoretical example of ingenious and painstaking combination and able draughtsmanship. As a building designed for erection it can scarcely be considered a model type on which to found a national style of architecture. Such was the verdict of the Convention and the Board of Trustees. The former, by a unanimous vote, passed a resolution of thanks to Mr. Moser for his skilful rendering of a difficult problem, and authorized its publication. The numbered "key" shows with what careful research Mr. Moser sought out and applied the motifs for the details of his design. Very respectfully, GEO. C. MASON, JR., Secretary A. I. A.

KEY TO A DESIGN ENTITLED "SUGGESTION OF A FACADE FOR THE A. I. A. BUILDING, NEW YORK CITY," BY MR. JOHN MOSER, ARCHITECT, ANNISTON, ALABAMA.



THE citizens of the United States being derived by descent or direct immigration from the principal nationalities of the earth, American architecture, in order to be characteristic, should also be cosmopolitan, combining, at least so far as form is concerned, the ideas of the whole ancient and modern world.

What past ages have established is now ours. A building, to be an artistic success, must be one organic whole, based upon the fundamental principles of nature: the archetype of all art, it should combine strength at the bottom, utility in the centre, and flowery elegance at the top. The Greeks divided the façade of an edifice into three parts: base, colonnade and cornice, either with or without a roof. This seems to be the best division of architectural parts established by historic precedent. I have, therefore, adopted it as a basis for the accompanying design.

A large city building, to be in unison with modern requirements, must be divided into many stories. There should be plenty of light and air, and for the section devoted to offices in the present design as little space as possible should be absorbed by the piers.

A stone cornice being an uncomfortable, overhanging weight when applied to so lofty an edifice, should be dispensed with as far as possible. In the present instance, I have projected a bold iron gallery resting upon iron brackets, suggesting a bed-mould and modillion course, while the iron balustrade indicates the line of a crown-moulding. I have thus obtained the necessary shadow of a cornice projection, while reducing the overhanging weight. I have further aimed, with what success you see before you, to make one entire story serve as a richly-decorated frieze, utilizing the next cornice below as a moulded architrave.

In a building designed for occupancy by the American Institute of Architects I considered that no motif could be more appropriate than an embodiment of the history of our art. I have, therefore, attempted to solve the problem of designing an historic façade, where every epoch in architectural history shall be represented by details from the best examples now obtainable, following each other in regular and orderly sequence. Thus, the first story represents the Prehistoric period; in the second the Greek appears, followed by the Roman classic, closed in by the Moresque arch. The principal corner I have let down, in order to obtain enough stories to admit of the introduction of all the salient points in the history of Christian architecture. Commencing with the Byzantine I have introduced the Romanesque, followed by the three periods of Gothic. As Gothic construction, simmered down in a nut-shell, is a combination of pointed arches and buttresses, I have cut off the corner of the building, obtaining in the angle a proper position for the introduction of a finial and flying-buttresses, most important factors in Gothic architecture. Following the Gothic, which in the last period covers the whole width of the façade, typical of its universal acceptance by the building world, I have introduced sixteenth-century Renaissance with modern Renaissance, including Victorian Gothic, and the latest phase of all architectural design, Queen Anne. The gable is surmounted by Foley's statue of "Caratacus challenging the World," thus symbolizing the fact that whatever may be said of American skill and learning there is nothing the matter with our ambition.

In the vertical division of the façade I have carefully kept together the characteristic architecture of the several countries represented — thus, counting from left to right, the first bay is Spanish,

the second Italian, the third Venetian, the fourth English, the fifth German, and the sixth French.

The historic façade returns at the corner, and as I wished to represent a portion of the side elevation without a visible roof, it was necessary to arrange a corresponding return at the rear corner of the edifice; I have, therefore, divided the side elevation into three parts, expressing the idea of Art by the front pavilion, American Industry by the rear pavilion, and America by the curtain between them. This central division not proving wholly satisfactory, I prepared an alternative design, introducing more glass and less decoration; more utility and less poetry. This second design for the centre of the side elevation I have incorporated in the perspective.

Understanding that the drawings should be prepared on a uniform scale of one-eighth of an inch to the foot, I commenced the elevations at that scale. Being, however, obliged to devote my days to office duties I could only give evenings to this, my labor of love. Since the middle of March to date (August 25), I have devoted four hours each evening to its preparation. During the past month I have employed a draughtsman to work upon the perspective during the day while I worked upon it at night. The strain upon the eyes became very severe while using so small a scale by lamp-light; to ease them I adopted the three-eighths-inch-to-the-foot scale for the perspective, and having but little experience with etched drawings, this being my first of any size, I found that the three-eighths-inch scale was as much too large as the one-eighth-inch was too small. I was too far advanced, however, to retrace my steps, and kept pegging away until the drawings were completed.

In the historic façade every motif is from a well authenticated example, thus:—

Prehistoric:—

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| No. 1. Indian rock-temple. | No. 2. Stonehenge, England. |
| No. 3. Temple of Chesus, Karnac. | No. 4. Temple of Philæ. |
| No. 5. Temple of Dendera. | No. 6. Ruins of Hall of Xerxes, Persepolis. Tomb of Cyrus. |
| No. 7. Grotto Temple, Elora, India. | |
| No. 8. Temple of Corinth, Greece (early Doric). | The transom-bar decorations are from Yucatan, Central America. |

Greek:—

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| No. 9. Temple of Delos, late Doric; Griffin of the Ægina Minerva. | |
| No. 10. Erechtheum, Athens. | No. 11. Apollo Didymæus, Miletus. |

Roman:—

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| No. 12. Pantheon, after Adler's restoration. | No. 13. Colosseum, Rome. |
| No. 14. Arch of Titus, Rome. | |

Moresque:—

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| No. 15. Mosque of Cordova; corner ornaments from the Alhambra. | |
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Byzantine:—

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| No. 16. St. Sophia, Constantinople. | No. 17. St. Apollinare de Nuovo, Ravenna. |
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Romanesque:—

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| No. 18. St. Apollinare in Classe, Ravenna. | |
| No. 19. Notre Dame la Grande, Poitiers, France. | No. 20. Duomo of Parma, Italy. |

Thirteenth-Century Gothic:—

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| No. 21. Dom of Spier, Germany. | No. 22. Abbey church, Croyland, Germany. |
| No. 23. Canterbury Cathedral, England. | |
| No. 24. Notre Dame, Paris, France. | No. 25. Renter Schloss, Marienburg, Germany. |
| No. 26. Salisbury Cathedral, England. | No. 27. Duomo of Siena, Italy. |
| No. 28. Casa Longa, Valencia, Spain. | No. 29. The buttressing system with finial. |

Fourteenth-Century Gothic:—

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| No. 30. St. Ouen, Rouen, France. | No. 31. Strasburg Minster, Germany. |
| No. 32. Abbey Cathedral, England. | No. 33. Spedale Grande, Milan, Italy. |
| No. 34. Cathedral, Toledo, Spain. | |

Fifteenth-Century Gothic:—

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| No. 35. Cathedral of Rheims, France. | No. 36. Cathedral of Thann, and Cologne gable, Germany. |
| No. 37. St. Michael's, Oxford, England. | No. 38. Doge's Palace, Venice. |
| No. 39. Duomo of Lucca, Italy. | No. 40. Cathedral of Valencia, Spain. |

Sixteenth-Century Renaissance:—

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| No. 41. House in Dijon, France, (Raguenet). | No. 42. Fürstehof, Wismar, Germany. |
| No. 43. Wollaton House, England. | No. 44. Palazzo Grimani, Venice. |
| No. 45. Certosa, Pavia, Italy. | No. 46. Klosterhof, Lupina, Spain. |

Modern Renaissance:—

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| No. 47. House in Paris (Raguenet), Neo-Grec. | No. 48. Kaiser Gallery, Berlin, Germany. |
| No. 49. House in London, England. | No. 50. House, New York. (Sturgis & Brigham, Architects). |
| No. 51. Covered passage, Milan, Italy. | No. 52. Theatre Rybinska, Russia. |

Queen Anne:—

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| No. 53. Neo-Grec house, Paris, France, (Raguenet). | No. 54. Kaiser passage, Berlin, Germany. |
| No. 55. Parshall Opera-House, Lyons, N. Y., (Kirby & Bates, Architects). | |
| No. 56. Glasgow Trades-house (Solomon & Son, Architects), Scotland. | |
| No. 57. Palace Valdemir, Alexandrowitch, Russia. | |
| No. 58. Howard National Bank, Boston, (Peabody & Stearns, Architects). | |
| No. 59. Nondescript from Perth Amboy catalogue. | |
| No. 60. Vanderbilt house, New York, (G. B. Post, Architect). | |
| No. 61. Foley's Caratacus. | |

Side elevation, central division: America symbolized, thirteen arch-stones, thirteen original states; Commerce, Mercury's staff combined with locomotive driving-wheels and railroad track.

Division A represents the South; B the East; C the West.

A. South.—The decorative motives are: 1, crowned cotton-bale; 2, cotton plant; 3, mule; 4, magnolia; 5, passion-flower; 6, opossum;

7, palms; 8, alligator; 9, hanging moss; 10, sweet-gum; 11, coon; 12, pineapple; 13, oranges; 14, banjo and sugar-cane; 15, negro.

B. East.—1, Manufactures; 2, buzz-saw and ax; 3, horse; 4, anvil, hammer, cog-wheel and cotton-spindle; 5, "almighty dollar."

C. West.—1, Horse; 2, corn and hoes; 3, cattle; 4, wheat and pitchfork; 5, pig (pork).

Alternative elevation of centre division: 1, 13 arch-stones; 2, commerce; 3, cotton frieze; 4, frieze containing the opossum, coon, alligator, magnolia, hanging moss, palms, oranges, etc., for South. 1, corn; 2, wheat; 3, buzz-saw and ax; 4, pine tree, for West. 1, manufactures; 2, "almighty dollar;" 3, factory chimney, for East.

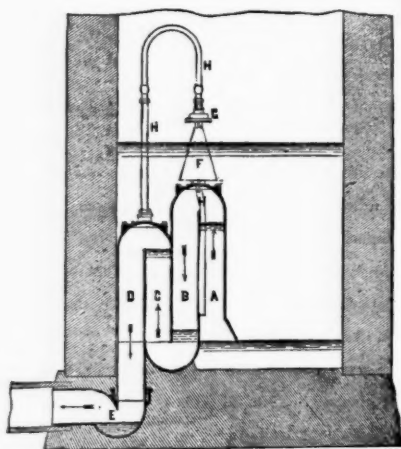
End division symbolizing American industry: 1, agricultural implements and tools; 2, nails and screws; 3, guns and pistols; 4, boots, shoes and leather; 5, spindles; 5, anvil, hammer, bellows and fire (iron interest); 7, sewing-machine; 8, piano; 9, watches; 10, clocks; 11, street car; 12, Pullman palace-car; 13, marine.

Throughout the design I have aimed to combine the heaven-aspiring tendency of the Gothic with the dignified independence of the Classic; to make the proportions as good, and the whole façade as harmonious as the Greek; as vigorous as the English; as graceful as the French; as refined as the Italian, and as systematic as the German. I have spent seven months, four hours every night, on this labor of love, and the result, the best that I can do, now lies before you, and awaits your criticism.

JOHN MOSER.

ANNISTON, ALA., August 25, 1883.

THE SEWERAGE SYSTEM OF BLAIR LODGE, LAKE FOREST, ILL.,
MR. W. L. B. JENNEY, ARCHITECT, CHICAGO, ILL.



PURSUANT to your letter of request, of date of September 22, 1883, I send you the designs of the sewerage of Blair Lodge, erected by John I. Blair, for Mr. and Mrs. Walter C. Larned, at Lake Forest, Illinois, on a bluff some sixty feet above and overlooking Lake Michigan, and of which two perspective views were published in the *American Architect* for January 27, 1881.

The only details of special interest relate to the method

employed to dispose of the sewage, which could not, except at large expense, be discharged into the lake, owing to the heavy waves, piles of ice, and the often-shifting shore-line.

The sewage was taken to a brick flush-tank or collecting-basin, where all solid matters, unless very finely subdivided, are held until maceration takes place, which process is continually going on, the fine particles passing out of the collecting-basin into the flushing-basin.

The flushing-basin is emptied periodically by means of an automatic siphon, invented by Mr. Benazette Williams, C. E., into a distributing-basin, and from thence by several lines of two-inch drain-tile, laid not less than one foot below the surface of the ground.

The action of the siphon is thus explained by Mr. Williams (*see initial-cut*):—

"The reservoir, on being filled to the upper water-line shown, is emptied by the siphon in a few seconds to the lower line, no further discharge occurring until the reservoir has been again filled. This action of the siphon can be understood by reference to the illustration. The two limbs, C and B, form a deep trap which, if containing sufficient water, makes a seal between A and D. As the water rises in the reservoir it also rises in the limb A. As soon as it reaches the lower end of the small pipe H, which extends down within a few inches of the bottom of A, the air in the upper part of A and B is confined, and as the water in the reservoir rises still higher it is compressed, at the same time forcing the water down in the limb B and up in the limb C. This action continues until the water has reached the highest point in the reservoir, at which time it has the position in A, B and C as shown. The compressed air confined between the water in A and B is liberated by means of a small valve, G, operated by the float F, thus allowing the water to flow in and fill the siphon, including the limb D. By this time the partial trap E has been fully sealed, thus causing a discharge with a head equal to the difference of height between E and the surface of the water in the reservoir. The reservoir is quickly emptied to its lowest point, when the admission of air checks the flow, causing the trap E to unseal, and air to be admitted freely at E, and in turn through the pipe H H to the limb A. An equilibrium is thus restored, and the siphon is ready for the reservoir to be again filled."

At Blair Lodge the side of the ravine was so broken, and the bot-

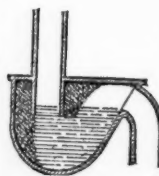
tom of the valley almost entirely occupied by a stream that only one thousand feet of tile could be used, with considerable expense of grading.

This villa is a summer residence only, and is occupied by some twelve persons. To secure a complete flushing of the out-door sewerage tiles, etc., some of the catch-basins, collecting surface-drainage, emptied their water into the system. It was found by experience that one thousand feet of drain-tile were not sufficient to take care of the sewage from the house, and the additional water from the grounds after a hard summer shower: the discharge from the tiles would then run through the ground, and down the slope, twice causing a wash, and necessitating the relaying of some of the tiles. The surface-drainage was then cut off and turned in another direction, and no further disturbance took place; still, at times the ground would be very wet in the vicinity of the tiles, and have a perceptibly bad odor, which became less and less apparent as the grass and shrubbery grew over the slope above them, and has now, I think, disappeared entirely. From these observations I conclude that one thousand feet of tile are scarcely sufficient for so large an establishment, especially, as in this case, where the subsoil is a stiff clay, at least until such time as the ground is covered with vegetation.

The depth of the tile below the surface should, under level sod, be not less than twelve inches. I have never laid them less than twenty-four inches, and when shrubbery is planted above they should be still deeper, that they may not be obstructed or disturbed by the roots. The addition of a few hundred feet more of drain-tile is, I believe, all that is needed to make the sewerage of Blair Lodge in all respects perfect and satisfactory.

SANITARY PLUMBING.¹—XV.

WATER-SEAL TRAPS.



Old D-Trap.

WATER-SEAL traps bear the same relation to mechanical traps that the hopper water-closet bears to pan, valve, and plunger closets. They accomplish their work of removing the wastes, and excluding sewer-gas much more perfectly by the simple action of the flushing stream, and by the water-seal which it forms, than do the complicated machines already described, and they must be placed far ahead of them. Here again the leading sanitarians are in accord; but, as is the case with hopper-closets, so it is with water-seal traps; there is the greatest difference in the manner in which the different kinds perform their duties.

Our first general division of water-seal traps is into

- (a) *Sediment-Traps.*
- (b) *Self-Cleansing Traps.*

(a) SEDIMENT-TRAPS.

Sediment-traps may be designated as those whose inner surfaces are not cleansed by the scour of the water passing through them, but which gradually become coated with a deposit of filth. The deposit is due to the improper form and size of the water passages, which sometimes cause the current to pass through them sluggishly, and without exerting upon them sufficient friction to keep them clean, and sometimes furnish chambers or pockets in which no movement at all takes place.

We have subdivided sediment-traps into

- (1) *Air-vent traps,* and
- (2) *Reservoir-traps.*

(1) Air-Vent Traps.

Figure 47 represents a trap having an air-vent, provided with a valve, in the inlet-pipe above the water-seal, and connecting it directly with the sewer. The exclusion of sewer-gas therefore depends upon the accuracy of fit of this valve alone without the aid of water. We have already explained that such a valve could never be made gas-tight even when new. The hinge, even if it could be thoroughly protected from contact with the waste water rushing through the trap, must ultimately be corroded by the vapors arising from the water and damp surfaces immediately surrounding it. A very slight corrosion is sufficient to interfere with the operation of a valve so very light as is the one in this trap, and the slightest imperfection would prevent a valve hung in this manner from bearing firmly against its seat. Hence, this valve is totally unreliable, and since it furnishes a direct communication between the sewer and the house, such a trap must be condemned as most unscientific and dangerous. The object of the air-vent is to prevent siphonage. But the vent must from its position be much too small as compared with the size of the trap for the purpose. The friction of the air in passing through so small an opening is more than enough to offset the inertia of the light body of water in the trap, and consequently the partial vacuum caused by a strong siphonage is partly supplied by the inlet-pipe through the water, and the water-seal is destroyed in its passage. The interior of the trap soon collects sediment. It is particularly faulty in having numerous joints difficult to



Fig. 47.—Air-Vent Trap.

¹ Continued from page 20, No. 420.

make and keep tight, and large surfaces which are imperfectly washed, or never washed at all.

(2) *Reservoir-Traps.*

Figures 48 to 55 inclusive represent various forms of sediment collecting traps. The most famous in this country are the pot-trap

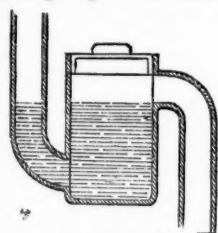


Fig. 48. — Pot-Trap.

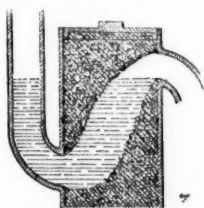


Fig. 49. — Pot-Trap Clogged.

(Figs. 48 and 49) and the D-trap (Fig. 50). The latter is also shown in the initial cut of this chapter, as with sediment. These two traps and the globe and bottle-traps (Figs. 51 and 52) are difficult to siphon out when the size of the body is made large enough in proportion to that of the inlet and outlet-pipes; but they are not constructed on scientific principles, and are in fact nothing more than small cesspools. Of all these forms the pot-trap is the best. The rest are defective



Fig. 50. — D-Trap.

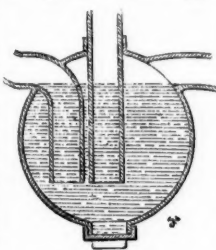


Fig. 51. — Globe-Trap.

in having the inlet-pipe buried within the sediment chamber. This is not only wasteful of material, and altogether useless, but it furnishes additional surface for the deposit of sediment. Moreover, if these concealed partitions between the inlet-pipe and sewer are defective they furnish a secret passage for the escape of sewer-gas. With unventilated soil-pipes this becomes a still more serious defect. These partitions have been found in old D-traps so perforated by sewer-gas as to furnish it a free passage into the house without the knowledge of the occupants. The defect could not be discovered by the leakage of water, and the gas is not always to be detected by the sense of smell.

Although the pot-trap is liable to collect sediment, and become at times very foul within the cesspool chamber, it may, nevertheless, be made anti-siphonic, and, if the walls are sound, the foul gases within it cannot escape into the house. All they can do, under ordinary circumstances, is to remain in the trap until they are driven out by the next current of water that passes through it; or, if the trap be left unused for a long time the gases generated in the trap may pass through the water and be given off from its surface, partly into the drains and partly into the house. It is even barely possible that the lead of the trap might be ultimately corroded by the products of the decomposition within the trap. These are the dangers arising from the use of cesspools; but the cesspool may be from time to time examined and cleaned out, and with a well-ventilated soil-pipe the diffusion of gases would probably so dilute these products as to render such corrosion too slow to be dangerous. Although the presence of a cesspool, however small, in the house, is objectionable, and contrary to the first principles of modern sanitary plumbing, yet if a choice had to be made between the evils of an unventilated pot-trap and a ventilated S-trap, there should be no hesitation in preferring the former. The bottle-trap, Figure 52, is equally good with the floating ball-trap of equal size in resisting siphonage and in every other respect, and it is much to be preferred to it, inasmuch as it is not encumbered with a mechanical valve.

Figure 53 is an S-trap with a sediment-chamber at its bottom. This chamber was made with a view to aid the trap in resisting siphonic action. It has, however, no advantage whatever in this direction, or in any other. The extension simply adds to the expense and increases the amount of fouling surface. It has no more effect in reducing the effect of siphonic action than if it had been constructed solid of the same material with the rest of the trap. Figure 54 represents the ordinary bell-trap already criticised. Figure

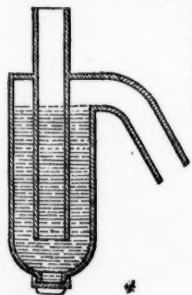


Fig. 52. — Bottle-Trap.



Fig. 53. — Modified S-Trap.



Fig. 54. — Bell-Trap.

55 is an improvement on the bell-trap in having the water-seal inde-

pendent of the grating. In both of these traps the water-seal is too small. Both are destroyed by the slightest disturbance of atmospheric pressure as occasioned by siphonage or momentum.

(b) *SELF-CLEANSING TRAPS.*

Are those which are scoured throughout by the water which passes through them. They are subdivided into (1) those which lose their water-seal under the action of siphonage or momentum, and (2) those which are capable of resisting such action.

(1) *Siphonable Traps.*

Figures 56 to 62 inclusive represent different forms of siphonable traps. A very feeble suction is all that is necessary to deprive any



Fig. 55. — Sink-Trap.

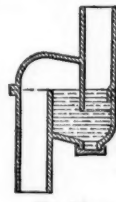


Fig. 56. — Modified S-Trap.



Fig. 57. — Modified Half S-Trap.



Fig. 58. — V Dip-Trap.

of these traps of their seal. The modified forms possess very little advantage over the common S-trap of equal depth of seal in the



Fig. 59. — Anti-D-Trap.

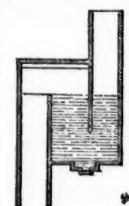


Fig. 60. — Modified S-Trap.



Fig. 61. — Common S-Trap, with two-inch seal.

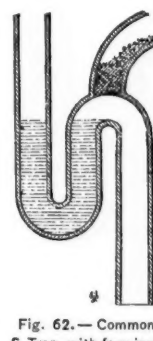


Fig. 62. — Common S-Trap, with four-inch seal.

power of resisting siphonage. Figure 63 represents a complicated device for replenishing the seal of traps exhausted by siphonage,

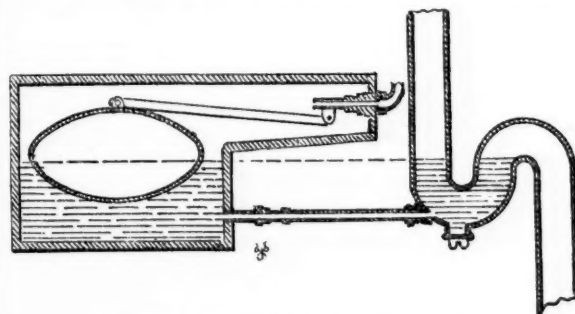


Fig. 63. — Device for Refilling Traps Automatically.

evaporation, or any other cause. Other similar devices have been invented, but they are too complicated, expensive and delicate to deserve more than a passing notice.

The traps shown in Figures 58 and 59 are designed particularly for water-closets; hence, no clean-out screw is shown on them. The water-closet trap is large enough to be cleaned out from the top when a water-closet of the proper kind is employed; hence a trap-screw is not required. Figure 62 shows the manner in which the ventilating openings of common S-traps have sometimes been found clogged up with sediment. These vents have been found filled with sediment to a height of over two feet from the mouth. The trap-screw should always be placed below the normal level of the standing water in the trap, because, when taken off for cleaning the trap, it may be carelessly replaced, and if the trap-screw is above the water-level on the drain-pipe side of the house an escape of gas may take place without warning.

Figure 64 shows a trap designed for trapping the main drain. It is intended to be fixed immediately outside the external wall of the house. It is not unusual in this country to place the foot-trap within the walls of the house to prevent freezing, and to admit of more convenient inspection; but it is better to place it on the outside, building

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.]

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 twenty-five cents.]

291,023. SHUTTER-BOLT. — George M. Bechtel, Reading, Pa.
 291,026. STEAM-RADIATOR. — William H. Brooks, West Point, N. Y.
 291,067. SKYLIGHT. — Oliver C. Hubbell, Cleveland, Ohio.
 291,060. FIRE-ESCAPE. — William F. Kientoff and Philipp Bertemes, Englewood, Ill.
 291,063. ELECTRICAL ANNUNCIATOR. — Albert E. Leitch, Dayton, O.
 291,074. REFRIGERATING-CHAMBER. — Aaron Myers, Hamilton, O.
 291,078. STONE-DRESSING MACHINE. — Wheeler Perkins, Methuen, Mass.
 291,101. SHUTTER-WORKER AND FASTENER. — Asa C. Sisson, Easton, Mass.
 291,108. SAW-HANDLE. — Moses E. True, Batavia, N. Y.
 291,114. BUILDING-BLOCK. — Joseph Wadleigh, Milks Grove, Ill.
 291,129. WRENCH. — William C. Baskin, Red Elephant, Cal.
 291,137. DEVICE FOR DRILLING SQUARE HOLES. — Ernst Herrmann Bieber, New York, N. Y.
 291,139. FLUSHING-APPARATUS FOR WATER-CLOSES. — Jas. E. Boyle, Brooklyn, N. Y.
 291,140. WATER-CLOSET AND OTHER BOWLS AND PIPE-CONNECTION THEREFOR. — James E. Boyle, Brooklyn, N. Y.
 291,142. BASE FOR PAINTS. — Atwater E. Brockett, Branford, Conn.
 291,164. VENEER. — August Dickman and Michel Heintz, Detroit, Mich.
 291,169. SPRING-HINGE. — Walter Duncan, Chicago, Ill.
 291,176. FIRE-PROOF COMPOUND. — Lawrence Feltin, San Francisco, Cal.
 291,178. PLANE. — William B. Fenn, Meriden, Conn.
 291,192. SUPPORT FOR BEAMS AND GIRDERS. — Peter H. Jackson, San Francisco, Cal.
 291,198. FIRE-ESCAPE. — Hugo Kafka, New York, N. Y.
 291,212. LIME-KILN. — John T. Meredith, Milwaukee, Wis.
 291,213. MONKEY-WRENCH. — Charles H. Miller, Erie, Pa.
 291,215. METHOD OF DECORATING WALLS, ETC. — Matthew Moneymey, Philadelphia, Pa.
 291,240. FIRE-ESCAPE. — Henry C. Stockham and John Adams, Germany, O.
 291,245. FIRE-ESCAPE. — Frederick William Voigt, Hickville, O.
 291,248. ROOFING-CLAMP. — Nathaniel W. West, Alna, Me.
 291,254. WINDOW-BLIND. — Joseph Williams, San Jose, Cal.
 291,259. EXTENSION FIRE-LADDER. — Gustav Witte and Otto Greiner, Berlin, Germany.
 291,260-267. PIPE-WRENCH. — Frank Armstrong and Nathaniel W. Vandegriff, Bridgeport, Conn.
 291,293. FASTENER FOR THE MEETING-RAILS OF SASHES. — George W. Curry, St. Louis, Mo.
 291,319. FIRE-ESCAPE. — Adolph Fischer, Ravenswood, N. Y.
 291,322. MEANS FOR VENTILATING BOW-WINDOWS. — Chas. S. Foos, Baltimore, Md.
 291,326. FIRE-ESCAPE AND ALARM. — William S. French, Jackson, Mich.
 291,333. FIRE-ESCAPE. — William H. Glenn, Kirksville, Mo.
 291,342. CROSS-CLIP FOR METALLIC SKYLIGHTS AND GLAZED ROOFS. — George Hayes, New York, N. Y.
 291,347. HEATER FOR STEAM AND WATER. — Alden Holt, Boston, Mass.
 291,372. PAPER-PIPING. — John McCausland, Providence, R. I.
 291,378. FIRE-ESCAPE. — Abraham S. Miller, Republic, O.
 291,380. DRAUGHTING-IMPLEMENT. — Nevin Milloy, Cincinnati, O.
 291,392. LOCKING-LATCH. — Elijah Nyswonger, Hanford, Cal.
 291,408. PLASTERING COMPOUND. — Hannah E. Seales, Newton, Mass.
 291,413. BRICK-MACHINE. — Frank W. Shelley and Samuel Kiser, Anderson, Ind.
 291,423. FIRE-ESCAPE. — Samuel J. Stofor, North Liberty, Ind.
 291,424. HAND-SAW. — Cornelius Tenney, Brooklyn, N. Y.
 291,428. FRAME FOR HOT-AIR REGISTERS. — Chas. W. Trotter, Rochester, N. Y.
 291,429. GRADUATED SCALE. — George F. Tuttle, Newark, N. J.
 291,440. ROOFING-FABRIC AND METHOD OF APPLYING THE SAME. — Cyrus M. Warren, Brookline, Mass.
 291,441. FIRE-ESCAPE. — George W. Watts, Brooklyn, N. Y.
 291,466. DOOR-CHECK. — Chas. R. Bickford, Elyria, Ohio.
 291,481. FIRE-ESCAPE AND HOOK-AND-LADDER CARRIAGE. — Isaac G. Morgan, Des Moines, Iowa.
 291,493. BLAST OR EXHAUST FAN. — George Marie Capell, Passenheim, County of Northampton, and George Seougal Macbean, the Grove, Bishopstoke, County of Hants, England.

291,508. PLASTERING COMPOSITION. — Henry Graf, Sebewaing, Mich.
 291,510. APPARATUS FOR WARMING THE UPPER ROOMS OF BUILDINGS. — John Samuel Heizer, Rushville, Ind.
 291,532. FIRE-ESCAPE. — Denison C. Pierce, Chicago, Ill.
 291,549. WINDOW-SCREEN. — George A. Thompson, Brooklyn, N. Y.
 291,552. MANUFACTURE OF BRICKS, TILES, ETC. — Anton Dimpf, Munich, Bavaria, Germany.
 291,586. PROTECTOR AND SUPPORTER FOR FIRE-ESCAPES. — Harlan Fairbanks, Boston, Mass.
 291,601. FIRE-ESCAPE. — Cyril Kehr, Chicago, Ill.
 291,628. ROOFING-FELT AND MECHANISM FOR MAKING THE SAME. — Augustine Sackett, New York, N. Y.
 291,646. LOCK. — Andrew B. Todd, Cheshire, Conn.
 291,663. LOCK. — William H. Andrews and Henry H. Sparks, New Haven, Conn.
 291,666. VENTILATOR. — John M. Ayer, Chicago, Ill.
 291,668. SELF-CLOSING FAUCET. — Silas Barker and Samuel L. Barker, Hartford, Conn.
 291,672. SASH-HOLDER. — Martin Bourke, Youngstown, Ohio.
 291,677-678. PAINT. — Antonio Buzolich, North Carlton, and T. King Smith, Prahran, Victoria.
 291,687. DOOR-KNOB. — John K. Clark, Buffalo, N. Y.
 291,688. PERMANENT FIRE-ESCAPE. — Thomas Clarke, Truro, Nova Scotia, Can.
 291,689. PORTABLE FIRE-ESCAPE. — Thos. Clarke, Truro, Nova Scotia, Can.
 291,695. TRANSOM-LIFTER. — Frank A. Cortis, Meriden, Conn.
 291,697. SASH-HOLDER. — Henry Cutting, Buffalo, N. Y.
 291,712. KNOB-ATTACHMENT. — William H. Goune, Chatham, Ontario, Can.
 291,734. ARTIFICIAL STONE. — William Howell, Philadelphia, Pa.
 291,737. SELF-OPENING AND SELF-CLOSING HATCHWAY. — David Humphreys, Norfolk, Va.
 291,740. SASH-BALANCE. — George M. Jewett, Bridgeport, Conn.
 291,756. FIRE-ESCAPE. — Otis G. Moore and Morris H. Marcus, Edenburg, Pa.
 291,815. BENCH-PLANE. — Justus A. Traut, New Britain, Conn.
 291,818. STEAM-HEATING APPARATUS. — Frederic Tudor, Boston, Mass.
 291,824. FLOOR-JACK. — Thomas L. Wilber, Seio, Neb.
 291,836. WINDOW-SCREEN. — George W. Boynton, West Oakland, Cal.
 291,838. SAFETY AUTOMATIC STOP-ATTACHMENT FOR ELEVATORS. — Oscar Brugger, Washington, D. C.

SUMMARY OF THE WEEK.

Baltimore.
 BUILDING PERMITS. — Since our last report but two permits have been granted, neither of which is of sufficient importance to note.

Brooklyn.
 BUILDING PERMITS. — Woodbine St., s. s. 300' e Bushwick Ave., two-sty frame dwell., tin roof; cost, \$2,800; owner and builder, Andrew Walker, 106 Palmetto St.
 Fox Run St., s. s. 300' w Patchen Ave., 4 two-sty brick dwells., tin roofs; cost, each, \$3,900; owner, architect and builder, Cardwell & Hawkins, 15 Lawton St.
 Seventeenth St., n. s. 250' w Seventh Ave., 5 three-sty frame tenements, tin roofs; cost, each, \$5,000; owner, architect and builder, Richard Chidwick, 19 Pike St., New York City.
 Nassau Ave., n. s. 50 East Oakland St., three-sty frame tenement, tin roof; cost, \$3,000; owner, architect and builder, Hugh Wilson, 139 Nassau Ave.
 North Third St., Nos. 99 and 101, four-sty brick factory, gravel roof; cost, \$8,000; owner, Paul Weidmann, 97 North Third St.; architect, T. Engelhardt; builder, Matthew Smith.
 Kosuth Pl., n. s. 200' e Broadway, 4 two-sty frame tenements, tin roofs; cost, each, \$2,500; owner, architect and builder, P. Johnston, 951 Broadway.
 Middletown St., s. s. 305' e Marcy Ave., five-sty brick factory, cement and gravel roof; cost, \$35,000; owners, E. Greenfield's Son & Co., 41 Barclay St., New York City; architect, E. F. Gaylor; builders, Matthew Smith and R. B. Ferguson.
 Van Buren St., n. s. 129' e Broadway, 4 two-sty and basement frame dwells., tin roofs; cost, each, \$2,000; owner, S. W. Post, 116 Palmetto St.; builder, A. Fardoun.
 Central Ave., w. s. 200' s Troutman St., two-sty frame store and tenement, tin roof; cost, \$3,000; owner, Wm. Fraety, Central Ave.; architect, G. Hillenbrand; builder, W. Bayer.
 Broadway, Nos. 877 to 881, e. s. 65' n Suydam St., 3 three-sty brick stores and flats, tin roofs and cornice; total cost, \$20,000; owner and builder, Fr. Herr, 778 Broadway; architect, T. Engelhardt.
 Second St., s. s. 40' e Bond St., three-sty frame tenement, tin roof; cost, \$2,500; owner, P. Callen, 26 Second St.; builders, Gibbons & Son.
 ALTERATIONS. — Flatbush Ave., Nos. 205 and 207, internal alterations, front and party-walls; cost, \$4,000; owner, G. H. Hildebrand, 203 Flatbush Ave.; builders, H. Wild and G. Byrnes.

Chicago.
 BUILDING PERMITS. — I. McFarlane, two-sty and basement factory, cor. Harrison and Clinton St.; cost, \$12,000; architect, W. W. Boyington; builder, I. Thornton.
 Max Wolff, 2 two-sty dwells., 3248 and 3250 Wabash Ave.; cost, \$16,000; architects, Furst & Rudolph; builder, A. Blomolt.
 Spaulding, three-sty and basement store and dwell., 210 Blue Island Ave.; cost, \$7,500.

Cincinnati.

THE YEAR'S WORK. — During the year ending December 31, 1883, the Board of Public Works issued 773 permits for new buildings, to cost \$670,950. As usual, these figures represent about one-half the true amount of the full building operations in this city.

The following table gives number of permits and cost of same for the past five years: —

1879, number of permits, 773; cost, \$1,730,051
1880 " " 636 " 1,521,700
1881 " " 572 " 1,851,550
1882 " " 666 " 1,962,300
1883 " " 773 " 2,670,950

The manner of keeping the records in all the above years has not been changed, and so in each case it is safe to multiply by two.

During the past year, therefore, more building has been done than for any previous year. The character of building generally has been good, both in design and construction. Among the buildings worthy of special mention, on account of cost if for no other reason, might be mentioned the Art Museum, in charge of Mr. J. W. McLaughlin, architect, now in process of construction in Eden Park. The work has advanced to the first story. David Sinton's store on Fourth St., Mr. McLaughlin, architect; and the Emery Building, on Fourth St., near Walnut St., Mr. S. Hannaford, architect. This building is 66' x 100', fire-proof, ten stories high, which makes it the highest building yet erected in the city.

LABOR AND MATERIALS. — Prices of materials and labor have not changed much during the entire year, and the prospect is that there will be little or no change during the coming year. Bricklayers receive \$4.50 per day; carpenters, \$2 to \$2.75; and all other mechanics from \$2 to \$3.

Ordinary brickwork costs \$11 to \$12 per thousand. Limestone cellar-work, \$4 per perch. Plastering on lath, 25 c. per yard; and on brick 18 c.

Lumber, yard-sizes, \$16 to \$18 per M. ft.

New York.

APARTMENT-HOUSE. — At Nos. 12 and 14 West Eighteenth St., an eight-sty brick and stone apartment-house, about 53' x 85', is to be built by the Randolph Co., from designs of Mr. T. M. Clark, of Boston.

TENEMENTS. — Five five-sty tenements with stores on first floor are to be built on the s. w. corner of Seventy-sixth St. and First Ave., for Mr. George Muller, at a cost of about \$90,000, from designs of Mr. John Brandt.

ENGINE-HOUSE. — For the Fire Department an engine-house, 25' x 100', is to be built on the north side of One Hundred and Fourth St., 150' w of Third Ave., from designs of Messrs. N. Le Brun & Son.

REAL ESTATE EXCHANGE. — The Real Estate Exchange and Auction Room have purchased No. 65 Liberty St., for their business purposes.

BUILDING PERMITS. — First Ave., n. e. cor. One Hundred and Fourth St., 4 five-sty brick tenements and stores, tin roofs; cost, \$12,000; owner, Wilhelm Juch, 307 East One Hundred and Sixth St.; architect, O. V. Biela; builders, Ed. Hammer and Paul Duden.

One Hundred and Sixth St., n. s. 69' e First Ave., five-sty brick tenement and store, tin roof; cost, \$10,000; owner, architect and builder, same as last.

One Hundred and Sixth St., n. s. 90' e First Ave., 9 five-sty brick tenements, tin roofs; cost, each, \$12,000; owner, architect and builder, same as last.

Ninety-second St., s. w. cor. Fourth Ave., 6 four-sty brownstone front dwells., tin roofs; cost, each, \$14,000; owner, Andrew T. Kerwin, No. 1 River View Terrace; architect, A. B. Ogden.

Fortieth St., n. s. 87' e First Ave., one-sty brick gas governor house, slate roof; cost, \$3,000; owner, Equitable Gas-Light Co., Post Building, Exchange Place; architect, Jno. F. Harrison; builder, Jno. T. Rowland.

First Ave., e. s. between Fortieth and Forty-first Sts., 4 gas-tanks; cost, each, \$30,000; owner, architect and builder, same as last.

Fifty-third St., s. s. 400' e Eighth Ave., six-sty brick factory, gravel roof; built by days' work; owner, Geo. A. Schastey & Co., 338 West Thirty-third St.; superintendent, Aug. H. Schastey; builder, J. P. Niblo.

Fifty-sixth St., n. s. 200' e Tenth Ave., five-sty brick tenement, tin roof; owner, Flora Sawyer, 164 Alexander Ave.; architect, Frank E. Verder; builders, Smith Bros.

Madison St., No. 204, five-sty brick tenement, tin roof; cost, \$11,000; owner, Herman Wendt, 153 East Broadway; architect, J. Kastner.

East Ninety-first St., No. 166, five-sty brick tenement, tin roof; cost, \$18,000; owner, S. Sullivan, 1365 Lexington Ave.; architect, J. Sullivan.

Riverside Ave., three-sty brick engine and hook-and-ladder-house, shingle roof; cost, \$19,000; owner, City of New York Fire Department, 153 Mercer St.; architects, N. Le Brun & Son.

Leggett's Point, East River, One Hundred and Forty-fifth and One Hundred and Forty-sixth Sts., one-sty frame pavilion, gravel roof; cost, \$8,000; owners, Pilkington & Nagele, 2376 Third Ave.; architect, A. B. Marshall; builders, W. A. Bilgin and A. R. Marshall.

Leggett's Point, same as last, one-sty frame bowling-alley, gravel roof; cost, \$4,500; owners, architect and builders, same as last.

Leggett's Point, same as last, two-sty frame boat-house, gravel roof; cost, \$2,500; owners, architect and builders, same as last.

One Hundred and Fourteenth St., s. s. 100' e Eleventh Ave., 2 five-sty brick tenements, tin roofs; cost, each, \$17,000; owner, Wm. Fenschild, 324 East One Hundred and Fourteenth St.; architect and builders, Wm. Fenschild & Son.

Fiftieth St., s. s. 100' e Eleventh Ave., six-sty brick tenement and stores, tin roof; cost, \$16,000; owner, Rosalie Steinhardt, 239 West Twenty-fourth St.; architect, Geo. B. Pelham.

Third Ave., s. e. cor. One Hundred and Twelfth St., 3 five-sty brick tenements and stores, tin roofs; cost, \$22,000; owner, James Connor, 221 East Fortieth St.; architect, G. Robinson, Jr.

Third Ave., e. s. 25' s One Hundred and Twelfth St., 3 five-st'y brick tenements and stores, tin roofs; cost, each, \$20,000; owner and architect, same as last.

West Eleventh St., Nos. 349 and 351, four-st'y brick dwell. and store, tin roof; cost, \$7,500; owner, John B. Caden, 402 East Fifty-first St.; architect, G. Robinson, Jr.

One Hundred and Fifty-first St., s. s. 125' w Courtland Ave., two-st'y frame dwell., tin roof; cost, \$3,500; owner, Wm. Rothe, n e cor. Courtland Ave. and One Hundred and Forty-eighth St.; architect, Wm. Kusche.

One Hundred and Forty-eighth St., n s. 74' East Courtland Ave., three-st'y frame tenement, tin roof; cost, \$3,600; owner, Thomas Loeser, 597 Courtland Ave.; architect, Wm. Kusche.

East Fifty-fifth St., No. 323, five-st'y brownstone front flat, tin roof; cost, \$24,000; owner, James Williams; architect, A. P. Ogden, 409 East Fifty-third St.

ALTERATIONS.—East Fifty-fourth St., Nos. 223 and 225, raise one-st'y; cost, \$4,000; owners, Jos. Doelger's Sons, on premises; architect, Chas. Stoll.

Philadelphia.

BUILDING PERMITS.—Reed St., cor. Sixteenth St., 6 two-st'y dwells., 16' x 28'; Wm. R. Matchett, owner. Hicks St., s of Dickinson St., 6 two-st'y dwells., 14' x 28'; Wm. R. Matchett, owner.

Fifteenth St., s of Dickinson St., 5 three-st'y dwells., 16' x 50'; Wm. R. Matchett, owner.

Tierran St., s of Dickinson St., 10 two-st'y dwells., 14' x 28'; Wm. R. Matchett, owner.

Mould St., s of Dickinson St., 12 two-st'y dwells., 14' x 28'; Wm. R. Matchett, owner.

Dickinson St., w of Fifteenth St., 14 three-st'y dwells., 16' x 50'; Wm. R. Matchett, owner.

Reed St., w of Fifteenth St., 9 two-st'y dwells., 14' x 28'; Wm. R. Matchett, owner.

Sixteenth St., s of Dickinson St., 6 three-st'y dwells., 16' x 50'; Wm. R. Matchett, owner.

Indiana Ave., cor. Warnock St., 5 two-st'y dwells., 14' x 30'; Jos. Miller, contractor.

Garrett St., w of Twentieth St., 2 two-st'y dwells., 14' x 28'; W. Elkins, owner.

ALTERATIONS.—Repairing of Betz & Son's brewery; plans by Wilson Bros. & Co., architects.

General Notes.

CAMBRIDGE, MASS.—Residence for Mr. Samuel Batchelder; Frederick B. White, architect, New York.

CHARLOTTE, MICH.—Remodelling residence of Dr. Green; Frederick B. White, architect.

PLATTSBURGH, L. I.—Work has been commenced on two houses for Mr. Robert S. Walker, to cost \$6,000 each. The architect is Mr. Frederick B. White, 294 Broadway, New York.

Also, a dwelling for Mr. Nelson Stafford; cost, \$4,500; architect, same as last.

JACKSONVILLE, FLA.—Residence for Mr. John G. Christopher; cost, \$6,000; Frederick B. White, architect, New York.

LONG BRANCH, N. J.—D. R. Lyddy is building a \$25,000 cottage on Ocean Ave. The contracts for the labor only are given out, the owner finding the material. Roystone's decorated shingles are largely used upon the exterior. J. M. Merrick, of New York, is the architect.

NEWBURGH, N. Y.—House for Mr. E. P. Peck; Frederick B. White, architect, New York.

NEW ROCHELLE, N. Y.—House for Mr. Samuel Crowder; Frederick B. White, architect, New York.

Stable for Mr. Chas. G. Miller; cost, \$4,000; Frederick B. White, architect, New York.

PRINCETON, N. J.—Refitting residence of Professor Wm. Sloane; cost, \$3,000; Frederick B. White, architect, New York.

STAPLETON, L. I.—Additions and alterations involving a cost of \$15,000, are to be made to Public School No. 2, at Stapleton, L. I., a brick building, under the direction of J. M. Merrick, architect, New York.

PROPOSALS.

FURNITURE.

[At St. Louis, Mo., Sandusky, O., etc.]
OFFICE OF THE SECRETARY,
TREASURY DEPARTMENT,
WASHINGTON, D. C., January 8, 1884.

Sealed proposals will be received at this office until 2 o'clock, P. M., of Wednesday, January 23, 1884, for manufacturing, delivering, and placing in position in complete working order, certain furniture for United States buildings in St. Louis, Mo., Sandusky, O., and other cities.

Upon application to this office, detailed information will be furnished to furniture manufacturers desiring to submit proposals.

The Department reserves the right to reject any or all bids, or parts of any bid, and to waive defects.

CHAS. J. FOLGER,
Secretary.

WATER-CLOSET APPARATUS.

[At Washington, D. C.]
OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., January 15, 1884.

Sealed proposals will be received at this office until 12 M., on the 30th day of January, 1884, for furnishing and delivering, properly boxed, free on board care, water-closet apparatus, in accordance with specification and schedule, copies of which and any additional information may be had on application at this office.

M. E. BELL,
Supervising Architect.

STONE-WORK AND BRICKWORK.

[At Peoria, Ill.]
OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., January 2, 1884.

Sealed proposals will be received at this office until 12 M., on the 25th day of February, 1884, for cutting, delivering and setting the stone-work; also for supplying and laying all the brick-work required for

PROPOSALS.

the court-house, etc., at Peoria, Ill., in accordance with drawings and specifications, which will be ready by February 1, 1884, and may then be obtained upon application at this office or the office of the local superintendent of the building.

M. E. BELL,
Supervising Architect.

BREAKWATER.

[At Buffalo, N. Y.]
UNITED STATES ENGINEER'S OFFICE,
BUFFALO, N. Y., December 27, 1883.

Sealed proposals, in triplicate, will be received at this office until 11 o'clock, A. M. (75th meridian time), on the 26th day of January, 1884, for the extension of the Buffalo breakwater.

Specifications, blank forms and instructions to bidders may be had on application to this office.

EDWIN MAGUIRE,
Captain of Engineers, U. S. A.

IRON RAILROAD BRIDGE.

[At Pittsburgh, Pa.]
CHIEF ENGINEER'S OFFICE,
PITTSBURGH JUNCTION R. R. CO.

On and after January 22, and up to February 1, 1884, bids will be received for four spans of a double-track iron railroad bridge across the main channel of the Allegheny River, at the foot of Thirty-third St., Pittsburgh, Pa.

Plans and specification can be seen at the office of Theodore Cooper, Esq., Consulting Engineer, No. 35 Broadway, New York, and also at the office of the Chief Engineer, P. J. K. R., Allegheny City, Pa.

H. A. SCHWANECKE,
Chief Eng. P. J. R. Co.

STONE-WORK AND BRICKWORK.

[At Quincy, Ill.]
OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., January 2, 1884.

Sealed proposals will be received at this office until 12 M., on the 5th day of February, 1884, for cutting, delivering and setting the stone-work, also for supplying and laying all the brick required for the court-house, etc., at Quincy, Ill., in accordance with drawings and specifications, which will be ready by January 15, 1884, and may then be obtained upon application at this office or the office of the local superintendent of the building.

M. E. BELL,
Supervising Architect.

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PROPOSALS.

information relating thereto, will be furnished on application to this office. Proposals exceeding the sum of \$1,500 will not be considered. The Government reserves the right to reject any or all proposals. Envelopes containing proposals should be marked "Proposals for Office-Building at Fort Monroe, Va." and addressed to the undersigned.

D. D. WHEELER,
Captain and A. Q. M., U. S. A.

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SCHOOL-HOUSE.

[At Piqua, O.]
PIQUA, O., December 26, 1883.

Bids will be received by the Board of Education of the city of Piqua, Miami County, O., for the erection of a High-School Building, until 12 o'clock, M., Saturday, February 3, 1884.

Plans and specifications for the above can be seen at the office of W. R. Brown, s w cor. Ninth St. and Broadway, Cincinnati, O., till January 1, 1884, after which time they can be seen at the office of the Clerk of Board of Education, in City-Hall Building, Piqua, Ohio.

The Board reserves the right to reject any or all bids.

By order of Board of Education.
F. A. HARDY, Clerk of Board.

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IRON BRIDGE.

[Near Cleaves, O.]
COUNTY AUDITOR'S OFFICE, HAMILTON CO., O.,
CINCINNATI, December 28, 1883.

Sealed proposals will be received at the office of the Commissioners of Hamilton County, O., until Saturday, January 26, 1884, at 12 M., for building a bridge across the Miami River, near Cleaves, O.

The superstructure will be of iron, and composed of three equal spans. Distance from face to face of abutments, 594 feet. Masonry will consist in building two piers and two abutments.

All work to be done according to the plans, specifications and profile now on file in the office of said County Commissioners.

Separate bids will be received for masonry, superstructure and piers, or the job complete.

The successful bidder only will be required to give security.

The Commissioners reserve the right to reject any or all bids.

J. W. BREWSTER,
County Auditor.

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FURNITURE.

[At Philadelphia, Pa.]
OFFICE OF THE SECRETARY,
TREASURY DEPARTMENT,
WASHINGTON, D. C., January 5, 1884.

Sealed proposals will be received at this office until 2 o'clock, P. M., of Monday, January 21, 1884, for manufacturing, delivering, and placing in position in complete working order, certain furniture for the new United States court-house and post-office building at Philadelphia, Pa.

Upon application to this office, detailed information will be furnished to furniture manufacturers desiring to submit proposals.

The Department reserves the right to reject any or all bids, or parts of any bid, and to waive defects.

CHAS. J. FOLGER,
Secretary.

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CUT GRANITE.

[At Washington, D. C.]
OFFICE OF PUBLIC BUILDINGS AND GROUNDS,
WASHINGTON, D. C., January 7, 1884.

Proposals for furnishing and delivering at the Du Pont Circle, at the intersection of Nineteenth and P Streets, northwest, in this city, the cut granite required in the construction of a pedestal for a bronze statue of Rear Admiral Samuel Francis Du Pont, will be received at this office until noon of January 28, 1884, and opened immediately thereafter.

Plans, specifications, blank forms of proposal, and any desired information can be obtained by responsible dealers in granite, upon application to this office.

A. F. ROCKWELL,
Colonel U. S. Army, in charge.

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ELEVATORS.

[At Albany, N. Y.]
OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., January 2, 1884.

Sealed proposals will be received at this office until 12 M., on the 23d day of January, 1884, for furnishing and erecting, complete, in the custom-house and post-office building at Albany, N. Y., one hydraulic passenger and two mail elevators, including boiler, pump, tanks, piping, etc., all in accordance with specification, copies of which and any additional information may be had on application at this office or the office of the Superintendent.

M. E. BELL,
Supervising Architect.

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MODERN PERSPECTIVE,

By Professor WILLIAM R. WARE.

Price, \$5.00.

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