

THE RECORD AND GUIDE.

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Real Estate and Building During the Past Year.

It is safe to assert that more houses were constructed during the past year than in any previous year in the history of the country. It is also certain that the new houses generally, both for business and residence purposes, were larger, handsomer, and costlier than at any previous period. This is true of nearly every centre of population in the United States.

In St. Louis, the estimated value of the buildings for which permits were issued is \$5,385,000, which is over a million dollars in excess of the improvements made during the previous year. In Chicago the building movement has been phenomenal. The number of permits issued was 3,640, the street frontage covered with new structures, lineal measure, was about fourteen miles, and the cost of the buildings over \$20,000,000, or about half that of the year 1872, when the rebuilding of the city after the great fire was going on.

On the whole, with all this building, it cannot be said that outside of Chicago there was any unwarranted or unusual speculation in real estate. There has been a rise of values in localities in the line of improvement, but there has been nothing unnatural in the prices asked for desirable real estate. In the agricultural lands in the far West, there has been something of a speculative movement, and large advances have been made upon the prices which were demanded some four or five years back. Undoubtedly in some quarters there has been too rapid an advance, but taking the Western country as a whole, it cannot be said there is as yet anything unnatural in the real estate movement. The new railroads and the immense immigration have created a legitimate demand for land heretofore unavailable. The activity has a speculative look, but is really entirely normal. It may be stated broadly that any good land in the United States near a railway and a market is not dear at forty dollars an acre. And there are many millions of splendidly improved farms, desirably located in the West, which can be purchased for less than twenty-five dollars an acre.

Here in the East, in all the manufacturing cities, there has been a great deal of building for manufacturing, trading and residence purposes; but, in the slang of the day, there has been no "boom" in real estate. This will come in time. In all speculative cycles it is stocks which are first affected, then general merchandise, and finally real estate. We may not see very high prices in 1883, but they are certain to come. Land is a fixed quantity which cannot be increased, while our population doubles every quarter of a century. There is no more certain investment than land in good locations.

Here in New York, while the number of houses erected was about the same as last year, when it was unusually large, there has been an entire absence of speculation. Some activity was developed in one or two favored localities, but the increase in price was not in any way unwholesome. Our local real estate market has sympathized somewhat with the Stock Market, and has been unduly depressed. But holders are firm in their views, and to the great bulk of house and lot holders, there is no inducement to sell at the market prices.

It is interesting to notice that Chicago is absolutely, as well as relatively, gaining on New York. The number of permits for new buildings is 3,640, against about 1,300 for New York City. But then the latter will cost over \$40,000,000, while the new structures in Chicago will be worth less than \$20,000,000. It would, however, take a good many years for Chicago to catch up to New York, even if it continued its present building activity. There is no danger that during this century or generation New York will yield its title as the metropolis to any other city of the United States.

This paper protested several weeks past against the passage of any new Bankruptcy Acts on the ground that they benefited only fraudulent creditors and lawyers. On Thursday, a petition was presented to the Senate, signed by 1,280 of the first business men in the country, taking the same view as that presented in these columns. The petition shows that without any National Bankrupt Law creditors have received dividends of 35 per cent., and settle-

ments were comparatively prompt. With the Bankruptcy Law in operation, the dividends range from 5 to 10 per cent. only, as the litigation is so prolonged that the costs of courts eat up the assets. The lawyers who profit by these acts manage somehow to secure all the leading papers to advocate their passage, and thus the curious spectacle is preserved of the business public being entirely misrepresented by the journals they keep alive.

The Growth of Speculation.

Some one would do a public service who would collect the statistics showing the growth of speculative transactions in this country. Mr. George G. Moore, Secretary of the Cotton Exchange, stated to the Senate Committee on "corners" that the total sales of cotton in this city will amount to nearly \$33,000,000 bales by the close of this year, while the entire crop for the period dealt in was less than 6,000,000, and the actual "spot" transactions was only 600,000 bales; that is to say, for every one bale of cotton actually handled in New York there were fifty-five sold; in other words, the Cotton Exchange exists almost entirely for speculative purposes. Not one in twenty of the brokers could earn their living if the dealings in cotton were confined to actual exchanges. The transactions in wheat, corn, oats and lard are still larger in quantity; but the precise figures cannot be given, because an official record is not kept as in the Cotton Exchange. Then, the best part of the speculation in food products is carried on from here in the Chicago market. The produce market reports, however, give some inkling of the extent of the speculation in their statements of the receipts and sales. For instance, the annual report for 1881 gives the following figures:

	Receipts.	Sales.
Wheat, bushels.....	44,285,219	488,364,200
Corn, bushels.....	45,932,357	233,879,000
Oats, bushels.....	14,695,039	62,765,500
Lard, tcs.....	605,787	5,933,028

It should be remembered in this connection that these vast speculative sales are a comparatively recent development of the regular business of our exchanges. "Futures" in cotton were first formally dealt in in this city in 1869, while the recent speculative transactions in food products is an outgrowth of Chicago enterprise. As our readers know, the late dealings in petroleum have been enormous, but the precise facts are not known as the transactions take place in several different markets. In the recent speculation there was sold in the short space of seven days as much petroleum as the country has produced during the last twelve years.

There is, however, a silver lining to the cloud. Brokers in all the exchanges agree in saying that speculative transactions have fallen off enormously. The outside public have been cruelly punished in their ventures, and customers are as scarce to the brokers of the Cotton and Produce Exchanges as they are for the brokers of the Mining and Stock Exchanges. The petroleum speculation is the only one that can just now be called active. Of course the disposition to speculate is as strong as ever and will find a vent in other specialties, but eventually real estate will get the benefit of the craving after additional wealth by those who, having tried everything else, will at last settle upon the most solid of investments—realty.

The Future of Fifth Avenue.

The past five years have seen great changes in certain portions of Fifth avenue above Madison square. Private dwellings have given place to boarding houses, and these again have been converted into stores and places of business. Apartment houses have become very common, and the number is likely to increase year by year. Jewelers, tailors, dress-makers and milliners have invaded the avenue formerly dedicated to the exclusive use of fashionable people. A great retail grocery and liquor store is even now being erected near the entrance to the Park, and, at the present rate of change, Fifth avenue from Madison square to Central Park will, in fifteen years' time, almost have entirely changed its nature. There will be no deterioration in the value of the property. Indeed, the stores and apartment houses will yield much larger returns than the most luxuriant private dwellings. Many rich persons will also inhabit this part of Fifth avenue, but they will own suites of rooms and apartments or live in hotels. The rich who wish to reside in their own houses, away from business, will be forced to seek their homes in the regions east of the northeast side of the Park. The *Tribune*, in a recent article, thinks that the very fashionable may seek new quarters on the Riverside Drive, or some other portion of the West Side, but it has been found very difficult in the past to establish new centres, either for business purposes or for fashionable residences. There is a certain continuity in building which prevents any serious break from costly houses to those of a poorer character, and vice versa. It is quite possible that the splendid apartment and other houses which are to be found so numerous just south of the Park may continue to spread in a northwesterly direction, in which event the fashionable quarter might extend itself up to the Boulevard and Riverside Drive; Indeed, this is very likely

to take place. Nothing can now save Fifth avenue from Forty-second street down to Madison square from becoming a business centre. It will be patronized by what is known as "the carriage trade." There is always more or less confusion on the south side of Madison square, and women shoppers who have their own conveyances will prefer to stop in front of an establishment on Fifth avenue rather than on the streets where the great retail stores are now located. A certain city paper believes that a great popular establishment like Macy's might be made to pay on Fifth avenue; but this is clearly a mistake, as the patrons to such stores are those who use elevated and surface roads, neither of which come near enough to Fifth avenue to put an establishment similar to the one named within reach of people with small means.

Whatever opinion family people may have as to values on Fifth avenue, it is based on its final use for other than residence purposes. Holders now understand the private dwelling must give way to the club, the hotel, the apartment house or the store. When the change is to take place is entirely a matter of time, but such revolutions have an increased momentum as the years pass by. It was difficult at first to establish a store on Fifth avenue and get it patronized, but in the not distant future it will become more difficult to prevent a private house from becoming a store.

New Office Buildings.

The new elevator buildings show considerable difference in treatment, but upon the whole, there seems to be a movement towards simplicity of design.

This is much safer than the opposite tendency—towards multiplicity. The worst result of a simple and uniform treatment is monotony of aspect which may go so far as to become tiresome and stupid. The result of an effort after variety and a separate treatment of every story of a towering structure has, except in the most skillful hands, the worse result of restlessness, confusion and vulgarity. Inasmuch as the architects who can make one whole of many and various parts are very few indeed, and as the difficulty of obtaining unity is increased with the number of the elements the designer undertakes to handle, it is clearly wise for most architects to restrict themselves to a few elements.

The ultimate rule in this, as in all other points of architectural design, is to let your building, so to speak, design itself; to find out what its real requirements are and to express these in the most direct way; to correlate structure and function. But this rule, though the simplest to lay down, is the hardest to follow, and requires a patience, an intelligence, a self-suppression and a self-denial, to which most architects are unequal. And what we commonly see in the works even of educated and accomplished designers is therefore not an organic development, but an arbitrary scheme, a scheme not imposed upon the architect by the building, but imposed upon the building by the architect.

The Godwin Building—or possibly it is the Bryant Building—now approaching completion upon the site of the old office of the *Evening Post* at Nassau and Liberty streets, and the Wells Building in lower Broadway are two of the latest elevator buildings, and with great differences of design and detail, both show this tendency towards plainness and simplicity.

In the former, which was designed by Mr. A. J. Bloor, the plainness goes near to baldness and the simplicity becomes monotonous. The Liberty street front is a structure of four piers running through six stories and dividing the building into two tiers of three openings wide at the sides and a narrower tier of two openings in the centre. The openings are separated from each other by plain mullions of cast iron. The piers are of red brick—above the first story which is of sandstone—square, of the same size from bottom to top, and are without either modelling or decoration, or other relief than binders of Nova Scotia stone at regular intervals. The divisions intermediate to the piers are iron mullions. The horizontal divisions are belts of brick, edged with fillets of stone, that above the principal story carrying an egg-and-dart moulding carved in brick. The brick band which divides the stories is omitted between the second and third, grouping these two stories into one in what seems a capricious exception to the rule, according to which they should be separated by a strip of brickwork. Except the egg-and-dart moulding just mentioned, a row of dentils under the fifth story, an ornament inappreciable from the street under the sixth, and the doorway, the detail of which is not yet in place, there is not a piece of moulding or of ornament in these six stories on the Liberty street side. Even the base-course of the principal story, which is projected from the wall, is left unmodelled. The width of the piers is ample, but they sadly lack visible depth. The appearance of the front is bald and bare, and entirely utilitarian and prosaic without being massive or powerful, but it is at least free from timidity or frivolity. The monotony of the Nassau street side is relieved by an arcade of segmental arches, upon cast-iron columns, with sandstone springers and keystones. This seems to be the most success-

ful piece of design in the building below the cornice. In fact it is not unfair to call it the only piece of design in this part of the building. The only defect of it, to us, is the interruption of the curve of the arches by the insertion of emphatic keystones, which are always intrusive, but especially so in an arch where the rise is so small and where it is so desirable to give the curve its full value instead of interrupting it. These intrinsic keystones reappear in the brick arches of the sixth story. But the iron is used frankly and neither in design nor in detail as an imitation of stone, the proportion of column to arch and of width to height is well studied, and the arcade is not only an architectural feature but a successful architectural feature. With this exception, there is no more architecture upon this front, below the cornice, than upon the other.

What we have called the cornice, and what is architecturally the cornice of the building, is in fact a balcony of some feet in projection carried upon terra cotta modillions, richly decorated in foliage. If it is to be what they call in the theatres a "practicable balcony," no doubt some more trustworthy support has been devised for it than these projections of burned clay, which appear to support it. If it is not to be a balcony, it cannot be considered architecture, for clearly a cornice is only in order at the top of the wall, and the dropping of a story below the eaves is an irrational and vicious practice. Between these modillions is a shell-frieze, also in terra cotta. The ornament, though scarcely bold enough to be effective at its height, seems to be well composed and looks rich. Over this balcony is an interpolated story, which is architecturally neither roof nor wall, and over this enough visible roof to give the unusual and gratifying sense that the building has a roof.

It will be seen that architecture is scarcely attempted in the general design of the building, the structure of which is a row of unmodelled and undecorated brick piers, and the openings of which are merely rectangular holes alike in every story but the topmost. Where no attempt is made at architecture, we cannot say that success or failure has been attained. Of the two features which constitute what architecture there is in the building, one is passably and the other rather more than passably successful. Nobody is likely to admire the building, perhaps, but on the other hand, nobody can be offended or disgusted by it, and if its architect has missed professional fame, he has escaped professional reproach.

The Wells' building, designed by Mr. Shaw, of Boston, is more ambitious, more costly, more towering, and in a far more favorable situation for exhibition or exposure, as the case may be, being at the bottom of Broadway, where that thoroughfare widens out to include Bowling Green. It is nine stories high, counting the two stories in the roof, besides the story of dormer windows, and is built of light granite, which becomes a soft brown under polish, with a black slate mansard roof. The material is used with a rock face in the basement and first story, "tooled" smooth in the succeeding four stories, and polished in the columns of the entrance and in the succession of "orders" with which the central division of the building is overlaid. The front is a symmetrical composition, a recessed centre, five windows wide, between two slightly projecting pavilions, each three windows wide. The openings are regularly spaced, and consist, except in the dormer windows, which are pedimented, and of no architectural interest in treatment, of mere rectangular holes. The aspect of the building is thus severely plain. The material, however, the fact that the front is left a field of wall, instead of being skeletonized into piers, and especially the treatment of the entrance, give its plainness a massive and substantial look which the other lacks. The entrance is a striking feature, a large arch, the springing of which is at the top of the first story, the arch itself running into the second, and having windows interpolated in the spandrils. The size of the arch itself and of its supporting columns, and the size and visible rocky strength of the stones which compose it give force and dignity to this entrance, and make it not merely the feature of the building, but a feature of lower Broadway. But, except this, there is nothing remarkable in the building. Its simplicity of treatment is attempted to be relieved, but is, in fact, enfeebled, by the overlay of classic orders in polished granite, which are evidently extrinsic and irrelevant to the structure, and might be removed without detriment to the structure and with advantage to the architecture; that is to say, such a course would leave it without architecture instead of with false architecture. If these things were taken away, the building would be quite as bald and utilitarian in appearance, though less meagre, than the Godwin building. It looks as if the architect, having essayed to build a plain granite building, had feared that it would be too plain, and added the orders as an afterthought, thereby spending the money of his clients unnecessarily and confusing the character of his building by adding trivialities to its plainness. All architecture which could evidently be left off from a building; had better never have been put on.

Upon the whole, however, the decent and inoffensive appearance of these two structures ought to encourage all but a select few of our architects to cultivate plainness in the treatment of elevator buildings.

Our Prophetic Department.

CITIZEN—As New York State and city is about to have a change of government, it might be interesting to many of our citizens if you, Sir Oracle, were to give some forecasts as to what manner of men our new rulers will be, and what the public may reasonably expect in the way of reform.

SIR ORACLE—The American people are generally indulgent to an chief magistrate when he assumes office for the first time. Its attitude is kindly, though expectant. There is just now a very general willingness to credit Governor Cleveland and Mayor Edson with good intentions. It may not be well, however, to be too hopeful. The evils of our local government are of so patent a character that it is not wise to expect any great changes, but I firmly believe that both Governor and Mayor will enter upon their duties with a determination to make a good record for themselves.

CITIZEN—Is there not some assurance that Governor Cleveland will be as determined in his fight against the lobby and the corrupt elements of the Legislature as he was in dealing with the evils incident to the local government of Buffalo?

SIR O.—If Governor Cleveland expects to clean the Augean stable at Albany as easily as he did the lesser one at Buffalo, he will probably learn that he has reckoned without his host. He will find himself dealing with very able and unscrupulous men, and I am not sanguine that he is capable of controlling the legislation of the State any better than his predecessors. He will probably be forced to make his mark, as did Cornell and Robinson, by the number of his vetoes. I think it very doubtful whether any affirmative legislation will be beneficial to the people of this city. New York ought to have a new charter, one which would rid us of commissions and put all the departments under single heads, who would be appointed by and be responsible to the Mayor. Of the \$7,500,000 now paid out in salaries, we ought to save at least half, certainly one-third. But see what a powerful influence these political sinecurists must wield. They have been successful every year in resisting legislation that would save the city's finances. I see no intelligent union of the tax-paying classes that could force the right kind of legislation through the two Houses of the State Legislature. It would be easy to raise \$1,000,000 to defeat a charter which saved the city's money, while I do not think that \$10,000 could be secured to give New York the right kind of a charter. The \$1,000,000 is apt to win in such a contest.

CITIZEN—That is rather a gloomy outlook, Sir Oracle. Are we never to have reform?

SIR O.—The unexpected happens, at times, in politics as well as in business. When Tweed said "What are you going to do about it?" there really seemed to be no answer, for the power of his ring seemed absolute and unlimited; but a political earthquake occurred, and a syndicate of scoundrels, who seemed to have mayors, aldermen, legislatures and judges in entire control, were suddenly fired out of office and became prisoners or exiles. Now, I fancy that before we can have a real reform in our city government some such catastrophe must take place again.

CITIZEN—What do you think of Grover Cleveland? Will he come up to public expectation?

SIR O.—I think not. He is a lawyer, has been in the employ of the Erie Road, and will not I judge do anything to injure the railway corporations. Hill, the Lieutenant-Governor, if he has the reappointment of the Senate committees, will hand them over to the railway interests. He is a bright, clever, unscrupulous person, and is directly in the employ of the Erie Road. The railroad people secured the two candidates for the Lieutenant-Governorship, so that, whichever party succeeded, the Senate committees would be packed in their interest. No railroad reform will get through the Legislature this year.

CITIZEN—You speak authoritatively. How do you know all this?

SIR O.—I am willing to let the prediction go upon record that the railroad interests in the State will not be disturbed by legislation this winter; and while anti-monopoly measures may get through the House, they will, as usual, be killed in the Senate. It would also be well not to be too sure of Governor Cleveland until after he appoints the railroad commissioners. That will tell how he stands.

CITIZEN—Well, if matters are so unpromising about the State, how about the city? What is your judgment of Mayor Edson?

SIR O.—I think very well of him. I happen to know that he is unpledged to John Kelly. The latter has never even hinted to Mr. Edson that he expects any special favors. Mr. Edson will necessarily come into collision with the Board of Aldermen, which is about an average one; that is, from two-thirds to three-fourths of the members are intent upon plunder. I assert, without fear of responsible contradiction, that under our present universal suffrage regime New York City cannot do otherwise than choose a Board of Aldermen, the majority of whom are corrupt. In one respect the city is fortunate. The Board of Apportionment will have two members, the Mayor and Controller, who are both able

and honest. They will permit no waste of the public money; that is, so far as rigidly cutting down appropriations for the various departments. They have no authority to get rid of the sinecures as by law established, but they can prevent the various departments from exceeding a certain limit. New York is to be congratulated on having two such men as Mayor Edson and Controller Campbell in this very important Board of Estimates and Apportionment.

CITIZEN—But surely something will be done to correct some of the grosser evils of our local government?

SIR O.—Oh, no doubt there will be an attempt in that direction, and perhaps a tub will be thrown to the whale in the shape of some amendments of the charter, having a semblance of reform; but unless the power of the Aldermen is curbed, and more authority conferred on the Mayor, it is idle to expect any vital change. The Mayor of New York is now a mere clerk, who spends nearly all his time in signing warrants. He should be relieved of this drudgery and made the real executive head of the city. Anything short of this it would be a mockery to call reform.

CITIZEN—What have you to say about National affairs this week? I see they are talking about Secretary Lincoln as a Presidential candidate.

SIR O.—Anyone who has carefully read an interview with some unknown person in the *Herald* last week, will come to the conclusion that it was inspired by no less a person than Chester A. Arthur. I firmly believe that gentleman intends to obtain the Republican nomination, and become his own successor if he can. He may fail in both endeavors; but then he may succeed. He is a born politician and a man of fair character and respectable talents. He is just one of those reserved, undemonstrative men which the American people prefer for Chief Magistrate. It is a notable circumstance that our people will not tolerate an orator in the Presidential Chair. A great deal of respect is paid to the Clays, Websters, Calhouns, and other great statesmen orators; but it is the silent men, the awkward speakers, who are generally nominated and elected to the Presidency. I would not like to bet on Arthur against the field, but it seems to me he is just the kind of man who would be acceptable to the great masses of the American people. He shows a great deal of tact, is conciliatory, and makes no blunders. Had Congress followed his advice in the last session, the Republican party would have made a respectable showing at the recent elections. I also venture the prediction that as the country grows larger there will be greater reluctance shown to changing the head of the government. Hence, some of us will live to see Presidents not only of third but of fourth terms. When we find one who is really respectable, able, and well-meaning, we will feel like keeping him in office.

The failure of the Co-operative Dress Association will be no surprise to hard-headed business men, though it will probably disappoint some enthusiasts who believed it possible to conduct mercantile transactions on republican principles. In this case a joint stock company, with a bright literary lady as its president and manager, undertook with an inadequate capital, to enter the lists against old and wealthy establishments, managed by shrewd and trained merchants. Very naturally it came to grief, as have all co-operative institutions, so far, in this country. When A. T. Stewart introduced the one price and cash payment system in the retail trade of the metropolis, some forty years ago, he made it impossible even to establish a co-operative store in New York or any of the large cities of the Union. Since his time they have been tried a thousand times, but have always failed. The success of distributive co-operation in England was entirely due to the vicious methods in the ordinary retail trade of the country. Before the Rochdale experiment, all the leading retailers gave long credits, a system that involved heavy losses, which could only be made up by extravagant charges. Rochdale introduced cash payments; no credits were allowed, the customers took home their goods, and the store was saved the expense of delivery. This also explains the success of the Civil Service Clubs and the Army and Navy Clubs in England. There are no instances on record of a joint stock company successfully managing a store. All corporations are inherently wasteful, and the conduct of a great retail business necessitates the sternest economy. A. T. Stewart's great business dissolved like "the baseless fabric of a vision" when it fell into the hands of a lawyer and a head clerk. It is true that the Bon Marche, of Paris, as well as Macy's, New York, is managed by what is practically a company composed of several persons, but these establishments were founded by business men who set all the machinery in motion which has outlived its inventors. The world owes much to corporations, but the melancholy revelations made day by day prove that they are extravagant in money expenditures. Hence their unfitness for conducting a great retail mercantile establishment.

Fire irons are mounted upon pedestals of open work brass and are themselves often richly cut or hammered in relief.

Moncure D. Conway on Louis Blanc.

LONDON, December 14, 1882.

Editor RECORD AND GUIDE :

Bryant was a true poet of the New World when he wrote "Truth crushed to earth shall rise again." But the Old World has something to say on that subject, and has answered, in an English hymn—

"Trial tells another tale,
Truth has failed, will fail again,
If not backed by faithful men."

If truth be crushed in an individual and for a generation, it is for them crushed for ever. If a man be defrauded of an estate it is no redress of that wrong, that after he is dead, it should be restored to a descendant; the estate belonged not to his descendant but to him, and if justice is not done to him, it is never done. Around the grave that opened on Tuesday to receive the form of Louis Blanc stood some veterans of the never-subdued Revolution, some visibly, others invisibly, and with their sorrow at parting with one of the sweetest and noblest spirits of our time, there was mingled the painful reflection that to this dead statesman an irreparable wrong was done, which recoiled with terrible effect upon his country. Twenty-five years ago, when the fiery surges of French Democracy again rose, floating and carrying away the monarchical expedients which for a time had arrested its force, here was one heart at least which had the humanity to feel, the sympathy to realize, the pain and hunger of the people. The best reader of history in his country, the most scholarly and eloquent interpreter of its needs and tendencies, Louis Blanc knew that this revolutionary mass would at length dash itself to pieces against the still powerful entrenchments of royal and ecclesiastical traditions and class interests. He conceived the great aim of reconciling the socialistic theories and aspirations of the masses and of their leaders with the actual order and political institutions of the country. He wished to do for revolutionary France somewhat the same that English statesmanship is trying to do for Ireland—that is, control its violent elements by bringing them to seek their aims, and find their legitimate satisfactions within the peaceful forms of the constitution. He sought to make terms with many-headed, starving labor by incorporating it. The Government was to establish a Ministry of Progress. Labor was to have a representative in the Cabinet. The Government should enter into a co-operative movement with it. As supreme director of the industry of the nation, the Government was to establish manufactories for the chief branches of national industry; to employ workmen at five francs per day, and to distribute the profits equally—in thirds—between the capitalists who advanced money for such establishments, asylums for the sick and aged, and for suffering industries; the other third of the profits to be equally distributed among the members of each such co-operative association. These members would be individually free to dispose of their earnings as they chose; and Louis Blanc would rely on the social and economic advantages of association to make the people more and more unite for common purposes, so that there would gradually be developed a healthy socialism representing the growth of popular and national prosperity. The English press has been writing of Louis Blanc as a man of genius, indeed, but a visionary, an amiable dreamer; but, on the contrary, he was a thinker who, born and nurtured in Utopia, steadily tested all its dreams, left its rosy clouds behind, but brought their human and progressive spirit to the practical aim of extending that socialistic principle which already exists in every public conveyance, every hotel table and club, every bakery that supplements the kitchens of many households.

Louis Blanc was an aristocrat by birth; he might have become the Dictator of France had he loved it less. He was set upon and nearly killed by the Bonapartists, when twenty-two years of age, for a brilliant exposure of Napoleonic fallacies. But that was not the fatal blow his country received in him. He once told me that when he was a member of the Provisional Assembly of 1849, it became his duty to deliver a flag to a certain Sergeant who was to swear to defend it. It turned out that this soldier was enormously large and tall, and beside the diminutive form of Louis Blanc appeared as a giant. When Louis Blanc had got through his speech on delivering the standard, the giant soldier in a fit of enthusiasm, caught him up in his arms and clasped him to his breast like a baby, as he swore to guard the flag. That tableau of giant toil clasping giant intelligence to its heart was visible but for a moment. Not long after this noble representative was violently assaulted by both royalists and radicals; by one party, because he had rendered it impossible for them to recover their lost power; by the other because he would not sanction their suicidal violence. He was forced (1848) to fly from his country. Through the door by which Louis Blanc fled to England, Louis Napoleon re-entered France. When the industrial door is barred the military door opens. The blows that the people dealt their best man now returned on themselves, fell on them thick and fast for the twenty years that ended in disaster, madness, ruin. Meanwhile the man who foreboded it all, and would have prevented it, remained an exile

here in London, drawing his circle of friends with ever-growing love and admiration around his great heart and brilliant genius—recalled to his country too late to save it from the results of its blind blows by which truth was crushed to earth.

Louis Blanc and his lovely German wife, Christine, had a pleasant home in London, where they lived in an unpretending way. They were not merely admired but loved by their many friends. His English was perfect, and his studies of all the great questions of the day profound. He was fond of conversing on religious and philosophical problems. His intellectual candor and wide culture had made him sceptical, but he was always glad to listen to reasonings in favor of theism and immortality. He told me that he was one day listening while two literary Frenchmen were disputing on the subject of a future life; one violently denied, the other as positively affirmed that doctrine. While the controversy waxed hot, a man approached the table and said: "In my opinion you are both foolish fellows to talk so much on a matter neither of you knows anything about." Louis Blanc shook hands with the stranger, whom he found to be Eugene Sue. He used to tell many good stories about these French controversies. He once heard two men in controversy about miracles. "But what is a law of nature?" urged one. The other got up silently, and holding up his handkerchief let it fall to the floor. "That is a law of nature," he said solemnly. While in London he wrote the most admirable letters to *Le Temps*; they have been collected in a volume and translated, and there is no other book which contains so many useful comments upon events of recent English history, or more valuable studies of English politics. He was also a careful student of American politics, and I have always hoped to see a translation in America of his valuable writings on republican ideas and methods, in which the experience of the United States is often utilized. He considered the great error of the United States was the preservation of the monarchical feature in the dangerous disguise of a Presidency. In this, I heartily agreed with him, and my little book, in which the subject is treated ("Republican Superstitions"), was written at his desire and dedicated to him.

Louis Blanc was still able to do his country much service. I remember well how his eyes shone with enthusiasm and his face with hope when, amid the terrible disasters of France, the dawn of that 4th of September came which raised the vision of a republic rising out of the ashes of the Empire; when he returned to France he was able to plead for the lives of the Communists (whose forerunners had nearly killed him) and helped to secure an amnesty. But this petrolean Communism was to him an avenging spectre risen from the grave where the murdered Socialism he believed in was buried. I remember being at his house in Paris just after one of the new Communists had been there trying to persuade him that property should be equally divided. He was still laughing (ah! I can hear that hearty laugh now!) over it. "I asked him how it was possible to divide equitably the property of the rich and the poor. He said, 'It would be equal all round.' 'That is,' I said, 'you go and take all Rothschild's plate and pictures, and then tell him he is welcome to come and take all yours!'"

No; that which was practicable in 1848 was utopian in 1873. Louis Blanc set himself to deal with the actual situation, and his book written soon after his return to France, *Questions d'aujourd'hui et de Demain*, is the most vigorous work on self-government, representation of minorities, universal suffrage, and the executive power, published under the present Republic. He had twelve peaceful years with his brother Charles (his remarkable relations with whom gave rise to the play of "The Corsican Brothers"), Victor Hugo, and other friends; but his feeling about the Republic remained one of mournful apprehension. The Republic, inaugurated by a massacre of these communists who might have been made sinews of the nation, is to-day not France but one party of France, having never been able to reconcile or absorb those embittered workmen of Lyons and other cities, whose discontent on one side is the main hope of anti-republican intriguers on the other. All he could do was to uphold the standard of the ideal Republic, and this he did to the last. A touching incident occurred in his last days. His mind wandered from day to day and hour to hour. In a lucid interval he directed the poor woman who had been faithfully nursing him to take a sum of 2,000 francs for herself from a certain place in the room. She refused. He then called for pen and paper, and wrote out a bequest of that money to her. He dated it "September 4." His mind had perhaps wandered again back to the day when the Empire was buried under the ruins it had caused, and France again held out her arms to receive once more her exiled sons. France will build a monument for the men once rejected; and there might be carved on it to represent the spirit of the noble life now ended, the dying face turned toward a poor woman, the failing hand extending to her the last grateful gift, with the date of his country's deliverance written upon it.

MONCURE D. CONWAY.

The Park Commissioners are right in asking an appropriation of \$40,000 for the purpose of erecting a restaurant on the site of the

Mount St. Vincent Hotel, in the Central Park. A good eating and drinking place for visitors to the park is needed at that point, and the cost would be inconsiderable in view of the convenience it would be for the public.

The land speculation in the Northwest is moving south. A syndicate of Buffalo capitalists have purchased 150,000 acres of Southern Missouri land to resell to actual settlers. The land is on the St. Louis & San Francisco Road, 175 miles southwest of St. Louis. Whenever the Indian Territory is opened—and it must be some day, there will be an active speculation in southwestern lands. Any one who wishes to lay by a heritage for his family, can do so by purchasing a section of land, on or near a railway in the far West. But one can do quite as well, and make as sure a venture in New York City.

The courts and the lawyers have succeeded in making a very tangled knot of the Western Union dispute. Having made such vast sums of money out of insolvent corporations, the legal fraternity were apparently determined to exploit some of the wealthier corporations. What a commentary is the whole history of Western Union litigation upon our great legal lights and the practice of our courts. The former authorize schemes which the latter declare illegal and void. Indeed our laws and our legal decisions seem expressly designed to bring in big fees for counsel, as neither equity nor common sense can justify them. How wise is the Stock Exchange, which promptly expels any of its members who appeal to a court to settle the merits of a transaction.

All About Home Clubs.

The attention of the public has been directed to the erection of "Home Clubs," or co-operative apartment associations, by the announcement in the last issue of THE RECORD AND GUIDE that a stupendous building of this character was soon to be constructed on the famous Fifth Avenue Plaza lots that will far out rival any of the magnificent buildings of a similar character that have already been erected. This club will entirely cover twelve city lots and will be many stories high, the situation selected being particularly favorable for a building of enormous proportions. It will have three fronts: that on Fifth avenue, from which it will be 300 feet distant, comprises the whole block from Fifty-eighth to Fifty-ninth streets, on the former of which it will run west a distance of 125 feet, while on the latter it will have a frontage facing Central Park of 175 feet. The cost of this improvement will probably reach, including the sum paid for the ground, \$3,000,000.

The erection of "Home Clubs" was originally commenced in 1880, and they were organized under the general corporation act of 1848, under which the various owners became copartners. In the following year an amendment to the act of 1848 was passed (Chap. 589, laws of 1881) which provided for the formation of stock companies for the purpose of acquiring title to ground and erecting thereon such structures as the stockholders deemed expedient. Under this law, and the amendments thereto, various Home Clubs have been formed, the method of procedure being as follows: A number of gentlemen of congenial tastes, and occupying the same social positions in life, meet together and agree upon a suitable site for, and the erection of, an apartment house. They next proceed to form themselves into a stock company, elect a president, secretary and treasurer, each member pledging himself to contribute whatever amount he may desire to the capital stock, which is made payable in installments. Each stockholder becomes entitled to a fifty years' lease with renewals, or virtually a perpetual lease of an apartment of greater or less dimensions in proportion to the amount of stock held by him. A fixed rental is established for each apartment to meet the current running expenses, such as coal, gas, janitor, bell-boys, taxes and interest on mortgage.

The reason that each stockholder is given a perpetual lease of his apartment instead of the fee is, that many restrictions can be embodied and enforced in a lease that have been held when property is owned in fee to be of non-effect. When the stock becomes full paid, certificates are issued for the same to the stockholders, which they keep or sell as they may desire and they may also sub-let their apartments subject to the approval of the other members of the club. It will be noticed from what we have just stated that a person need not necessarily be a stockholder in a club in order to be able to lease an apartment, nor is it necessary for a stockholder to reside in a club in which he owns stock.

The object of the whole co-operative movement is that it shall act as a mutual benefit society, and it was originally expected by the projector of the Home Club system, that it would be adopted by persons of quite moderate means, but for two reasons the reverse is the case, and in all the clubs thus formed, the stockholders are men of wealth. The first reason is, that men of small means, say a young clerk, with a couple of thousand dollars laid by in bank, before making an investment such as the purchase of an apartment, will consult the various branches of his family as to its desirability, and in nine cases out of ten, they will frighten him with their opinions on a subject, about which they know little or nothing. Secondly, rich men are accustomed to invest in various enterprises, and are willing and able to risk something, and generally have a legal adviser; while the man of more limited means is afraid to employ a lawyer to investigate the matter for him on account of a possible large fee. When this movement was in its incipency, ground was purchased at the corner of Lexington avenue and Eightieth street, for the erection of the first Home Club, which was designed for persons in the moderate walks of life, but had to be abandoned for the reasons which we have already stated. The second attempt was more successful, and a Home

Club on a paying basis was established on Fifty-seventh street, east of Seventh avenue, which was called the "Rembrandt." The next club was the "Hubert," which was erected on Fifty-ninth street, between Broadway and Seventh avenue. These two houses were erected under the general corporation act of 1848, but soon after the passage of the amendment to that act to which we have already referred, they were reorganized into joint stock companies. Since the passage of the amendment in 1881, the following clubs have been organized, the "Hawthorne," Fifty-ninth street, between Sixth and Seventh avenues; No. 80 Madison avenue, corner of Twenty-eighth street; the "Berkshire," corner of Madison avenue and Fifty-second street; the Central Park apartments, at Fifty-ninth street and Seventh avenue, comprising eight different structures, known as the "Lisbon," "Cordova," "Barcelona," "Madrid," "Sargossa," "Grenada," "Valencia," and "Tolosa;" No. 120 Madison avenue, corner of Thirtieth street; "Knickerbocker," Fifth avenue and Twenty-eighth street; the "Barrington," Twenty-fifth street, east of Madison avenue; the "Mount Morris," One Hundred and Thirtieth street, east of Fifth avenue; and the "Chelsea," Twenty-third street, between Seventh and Eighth avenues. Only the first three of these houses are as yet completed, the others being in various stages of construction, the entire amount of capital already invested in these Home Clubs having reached the enormous sum of nearly \$10,000,000 in less than three years. Of the buildings we have named the following are, or will be fire proof: No. 80 Madison avenue, the "Central Park" Apartments, No. 120 Madison avenue, the "Knickerbocker" and the "Chelsea," while the "Hawthorne" and the "Mount Morris" are semi-fireproof.

In all these companies a portion of the apartments are reserved by the stockholders to be leased for the benefit of the company. When the income from such apartments, in addition to the fixed rental paid by the stockholders for the use of their apartments, is greater than the running expenses of the company, a dividend is declared. Up to the present time investors in the stock of these clubs have received from 12½ to 25 per cent. upon their capital.

The question naturally arises how can a club be guarded against the entrance of objectionable members? The answer is, that a clause in each lease binds the member to which said lease is granted to transfer the same only to such persons as may be agreeable to a majority of the members of the club. There is also a provision in the by-laws that in case the club refuses to accept as a member a person to whom an owner wishes to transfer his lease an arbitration may be demanded to decide whether such person would be a desirable member. Already a large number of apartments have been sold in the various clubs without any trouble, and with as much ease as a man would dispose of his house, and in nearly all cases at a considerable advance over the price paid by the original purchaser.

In order to successfully form a Home Club it is necessary first that the ground should be purchased at the lowest market rates without the intervention of any speculator or promoter, and second, that the building itself should be erected under the supervision of a competent architect without the payment of any commissions whatever beyond the usual fee. Considerable difficulty is found to utilize to advantage the ground floors in these houses except when they are located upon business streets, in which case they are used for stores. Mr. Hubert, who was the original projector of this entire system of co-operative buildings, also devised by his system of double floors in a measure to overcome this difficulty, but still apartments may be rented on this floor at nearly one-half of the rental demanded for the second floor. When this system of co-operative building was first commenced threats were frequently made that the buildings would be burned to the ground, while Mr. Hubert was constantly in receipt of letters notifying him that his life would be taken if he did not stop the work.

In the course of time, it is hoped that our great money-lending institutions will deem it expedient to advance money to persons desirous of purchasing stock in a co-operative building, accepting as security the lease of the apartment to which they would become entitled, allowing them to pay off the same in easy installments. It is only in this way that Home Clubs can ever be made to benefit the masses of the people and carry out the original idea of their projector.

Investments in Home Clubs should be carefully made, and the same consideration given to them as to the other business ventures in which one may engage. We have heard of one case where a lady artist joined a club and selected her apartment, which was to involve a payment of \$11,000, but so great were the changes made in the original designs that she found when her apartment was completed, that her outlay was fully double that sum. In fact it may be stated that the tendency of all co-operative associations is to extravagance, rather than economy. When a Home Club is once in operation the system of co-operation may be greatly expanded; for instance, in the "Hubert" the supply of coal and wood is purchased at first cost by the company, and each stockholder purchases from it tickets calling for a specified amount of the same as occasion may require. This has been found to work well, saving to the stockholders about 40 per cent. of the usual retail price, but when the same system was applied to ice it was found not to work at all, and the company seeing that they were losing money on this article stopped supplying it. Some enthusiasts claim that the time will come when not only cooking but laundry work will be done by co-operation, but it is only fair to state that the originator of and those best posted in Home Clubs strongly deprecate it being pushed to such extremes.

As to the management of these houses, it has been found up to the present time that there was always some member of the club who would undertake this duty, but doubtless as the novelty of the scheme wears off it will be found necessary to employ some competent person to supervise the affairs of each club, or perhaps some real estate firm may make a specialty of this matter.

Fashions in every department of industry change so rapidly now, that whereas at one time a fashionable design in carpets or draperies would run for a season, now-a-days a new design will appear every week.

Household Decorative Items.

—The greatest novelty of the season, probably, is a small matter, being no more nor less than an umbrella handle. It is in silver, in imitation of English buck horn, and is a novelty introduced by Amasa Lyons, the foremost umbrella manufacturer in the United States. Almost equally popular, but less novel are the smoked ivory and iridescent balls mounted in silver.

—Fashionable work baskets are of twisted straw work, somewhat clumsy in make and decorated with single silk balls as large as hazel nuts depending from twisted silk cords. They are usually lined in some bright colored material and finished off around the edge with ruching of satin.

—Among many very beautiful things in the show windows of Solomon Bros., on Union Square, are chairs, the framework of which is gilded, while the covering of back and seat is in raised embroidery upon the finest satin.

—Mirrors of large size and oval shape are decorated in enamel. Landscapes and sea pieces are most beautifully reproduced this way. The appearance of iridescent colors is given and is very effective.

—The finest fireplace we have seen for a long time is on view at Stewart's, 21 West Seventeenth street. The facings are of enamel upon wrought brass, and the mantel of polished oak. A brass fender in very beautiful open work accompanies the stove and the andirons are of more recherche character, twisted columns supporting squares of brass hammered in relief.

—The "coming" material for draperies and furniture coverings is to be reps goblins; it is a very handsome fabric just finding its way into the market.

—The centre pieces for the dinner table are of Bohemian glass, beautifully engraved and gilt, a graduated vase rising from a deep oval dish of the same material which in its turn is mounted upon a polished plate, either of burnished metal or of mirror.

—Rococo ornaments have been much in demand this season, very pretty toilet sets are mounted in this style; they consist of a pair of crystal bottles and a crystal dish set in filagree gold work between the two.

—Probably the most beautiful specimens of genuine terra cotta work are those on view at Wm. Hays' store at the corner of Broadway and Sixteenth street. They are imported from the neighborhood of Dieppe in France, and are most exquisitely carved in representation of every-day incidents in the lives of the people. They are genuine works of art and are of great value.

—Among many specimens of Satsuma ware in New York, attention is attracted by a superb pair of vases in this ware which are exhibited by Morumona Bros., 221 Sixth avenue.

—Bolting muslin is now imported in deep shades of crimson and green, and is especially effective for screens, on account of its transparency. Mounted in beaten brass or in carved wood frames, such a screen forms a very handsome addition to a parlor.

—Hungarian work is frequently found in the stores now. It is usually an adaptation of natural materials, such as cones, funge or burls, which are cunningly worked and mounted upon colored silks, satin or velvet.

—Some of the porcelain which has found favor this season is rather remarkable for eccentricity than for beauty of form or workmanship. Size seems to be quite an important point, and it is not unusual to find a vase made in exact representation of a tree trunk overgrown with climbing plants, which, whatever we may think of the originality of the design, is a little out of place in a parlor.

—A favorite style of work is in imitation of waxed leather work upon a foundation of satin or of smooth cloth. Card cases of this kind have been much bought this season.

—Embroidery upon leather is gaining greatly in favor. The finest kid is usually chosen for this work and the patterns are the same as for embroidery in satin stitch. The design is traced upon the material and then small holes are made by a stiletto along the lines, to enable the needle to pass through readily.

—The fancy squares sold at the Japanese stores are much used in making lambrequins. They are cut into diamond-shaped pieces and one point in each is attached to a corresponding point in another, while in the interstices small stars of colored cloth are inserted and caught to the two upper and lower points. To each point a tassel is attached and the effect is very good indeed.

—The new designs of a clock pointing to five o'clock for a cloth of an afternoon tea table has met with great fame. Originally it was sent from London to a lady in New York, but it was at once copied and became immensely popular. It is usually worked in satin stitch with an outlined border in imitation of quaint cups and saucers.

—For mantle valances the pleasantest work is done on the coarse linen canvas called "Aida canvas," and wrought in double cross-stiches with single zephyr wool. This work grows rapidly, and is simple and easily done. The fringe is knotted when bought, and the worker ties in wools of different colors in each strand of the fringe; a border of drawn work is placed above the fringe.

—The clay for delft is sent from England, and is the same as that used by Minton. This is why delft is very dear—dearer than the Dresden china at Meissen. Every one acquainted with delft knows that it is the most fragile china in the world, whether as regards its finer kind or the earthenware. Indeed, on this account so little of the real old delft is left to tell its story, that it is when genuine, priceless from its extreme rarity.

—If, insists the *Building News*, the teachers of our architectural societies are to instruct students, they must preach less about "styles" and a great deal more about the condition or principles of procedure out of which styles were evolved. The only way to do this is to master the

constructive problems of building as a whole, and at the same time to cultivate an artistic analysis of the great historic styles, chiefly as regards the modeling of the masses, and the principles upon which their ornamentation depended. The value of good models of the great monuments of architecture and their separate parts and details is much underrated, if not altogether lost sight of, and our teachers of architecture may do something by supplying the deficiency.

—Alum frosting for leaves is both simple and harmless. Dissolve alum in boiling water, in proportion of a pound to a quart. Pour it into a deep vessel, and as the solution cools, the alum will be precipitated. Choose light sprays, and hang them with the stems upwards on cords stretched across the top of the vessel, so that they do not touch the bottom; the stalks will attract the alum in the process of crystallization like the threads of sugar-candy. The warmer the solution when the sprays are put in, the smaller will be the crystals attached to them, but care must be taken that it be not hot enough to destroy the leaves or fronds; and if there be berries, like holly, it must be hardly lukewarm. The same solution warmed again will do two or three times. If the sprays are frosted some days before being required, they must be kept in a warm dry atmosphere.

—The Poles are extraordinarily hospitable; they entertain without grudge. At every table in the large houses some extra places are laid ready for unexpected guests—as they say, "for the traveler that comes over the sea." The country houses are constantly full of visitors, and in the winter there is often the "Kulig," a gathering which increases as it goes from house to house. It is taken from a peasant custom, and the nobles, when they get up a "Kulig," wear the peasant costumes, very beautifully made. They go over the snow in sledges from house to house dancing for two or three days at one and then going on to another, taking the people of the house which they leave with them.

How Things Look to an Experienced Builder.

In the course of a rambling conversation, ex-Alderman Robert McCafferty recently expressed himself as follows: "Great as has been the advance within the last few years of property lying just east of Central Park, I do not believe that it has yet reached anything like its intrinsic value; but I disagree with those who so confidently predict that the entire section from Fifth to Park avenue is to be brought immediately into play for the erection of first-class private residences. Before this is done, you will see a large proportion of the wealthy residence quarter rebuilt, lying south of Central Park or Fifty-ninth street, between Park and Sixth avenues. There are many streets in this section where the houses could be torn down, and more pretentious structures erected in accordance with modern cultivated taste. You will find that when a wealthy citizen desires to erect a home for his own occupancy, he will not go to Ninetieth, One Hundredth or One Hundred and Tenth streets, but will be much more likely to look around for a couple of 20 feet lots in the region to which I have just referred, pulling down whatever buildings there may be thereon, and erecting a fine wide house. We hear a great deal said just now about overbuilding in Harlem. I do not believe in overbuilding, in this city, at least; you cannot put up too many houses, for rents are far too high, and many families have been driven to Brooklyn, Long Island City, Hoboken, Jersey City, Orange, and other adjacent points, from the lack of houses at a reasonable rental. There is no good reason why a capitalist who is satisfied with an income of 3½ per cent. on his government bonds, should demand 6 or 7 per cent. on his real estate investments. In my opinion a non-partisan census of this city would show a population of nearly 2,000,000 souls, the natural increase alone of which, to say nothing of immigration, or of persons who would be attracted from the adjacent towns and villages, would soon regulate any so-called overbuilding. It seems to me that some of our builders have made a mistake in decorating, frescoing, and too elaborately trimming the costly houses recently erected. In this age of travel and æstheticism, wealthy and cultivated people form various individual tastes; so when a lady desires to purchase a handsome home, she generally has ideas of her own in regard to furnishing and decorating it. If the house is already gaudily trimmed or decorated the chances are that the ideas of the possible purchaser in regard to furnishing would not harmonize, and in this way I account for the slow sale of the many new handsome residences."

That Coming Building Question.

Editor RECORD AND GUIDE:

Your article on "A Coming Building Question" in your issue of December 23-30, predicts an evil which must be remedied sooner or later, and I hope you will continue your efforts to provide some plan for relieving Nassau street and Park row from the overcrowding, which will necessarily take place when the Brooklyn Bridge is finished. Have you ever thought of widening Theatre alley—a lane which is little known and little used, and could therefore be widened at comparatively small expense. By taking a small portion of the westerly corner of the vacant lot, formerly occupied by the Potter Building, and running the line diagonally to the northwesterly corner of the Bennett Building, cutting through from Ann street to Fulton street, the new street thus formed could be carried through from Park row to the junction of Fulton and Nassau streets, without touching the *Times* Building or the Kelly and Bennett Buildings; but adding greatly to the value of the latter. This avenue could be made of any width desired, and would relieve both Nassau street and Park row, and if necessary could be continued to Wall street, where it would coincide with the present westerly line of Nassau street.

Your practical experience will enable you to judge of the advantages and also of the disadvantages better than I can, but I hope you will continue to agitate the question. I see the *Tribune* has copied your article, and everyone must recognize the value of your remarks. G. L.

BROOKLYN, December 28, 1882.

On Lightning Rods.

There are few subjects about which so much misconception, error or ignorance prevails as about lightning rods. The principal error consists in the notion that the projecting metallic point on the highest portion of a building is the most essential part to which an appendage is usually attached, consisting in a metallic rod or wire cable running to the ground. Even this appendage is rejected by some of the lightning rod men, one of whom has even obtained a patent for a lightning rod for petroleum oil-tanks entirely insulated as well from the ground as from the tank. The claim that this can be any protection whatever is, of course, based upon ignorance about the properties of the electric force, which ignorance, strange to relate, is nowhere so profound as among the lightning rod men, who often foster the most absurd notions, which they proclaim with all the audacity peculiar to the uneducated, when they never had any intercourse but with people more ignorant than they are themselves.

If we call that part of the arrangement which is most essential to the protection of a building against damage by lightning, "the lightning rod," then the true lightning rod is in the ground, invisible to the eye, because that which constitutes the chief principle of protection against lightning is the connection of the exterior conducting portions of a building with the conducting earth under the same, so as to give the atmospheric electricity a ready path through which to discharge itself by means of a series of good conductors, without giving it a chance to follow a course in which it may overleap spaces or pass through inferior conductors, which are always destroyed or even ignited when combustible, in case strong lightning discharges pass through them.

If the ground connection is defective, by not going deep enough, so as not to reach moist earth, which is always a good conductor, or when it ends in dry insulating gravel, the lightning is often seen to leave the conductor, so as to find a better path by the gas or water pipes of the house. Cases are on record showing that the lightning left the rod or cable outside the house and penetrated a brick wall, so as to follow water pipes on the inside, which form always a good ground connection, where there are water works. The gas pipes also form a good ground connection, provided what electricians call "a shunt" is made for the meter; this consists of a stout copper wire connecting the service pipe with the house pipe, through which the electric discharge will then pass, and prevent the changes connected with a charge passing through the meter, which being always made of thin metal might be destroyed and the gas ignited.

That we have not said too much in criticising those who make the construction of lightning rods their regular trade, is easily proved by the examination of the lightning rods they put up, and which are often amazing confessions of ignorance. They attempt to display a great deal of wisdom in regard to insulators, and often even use glass rings to pass the rod or cable through, as if the lightning falling from a cloud a distance of nine thousand feet perhaps, could be prevented by a little glass ring from overleaping a space of one inch. Others use a multiplicity of points above, notwithstanding that Faraday has practically proved that one single very elongated point is better than a bundle of several points. Others make points at different heights of the conducting cable, as if the lower air strata and not the wet soil deep under the surface, were the reservoir with which the lightning must be conducted. Others claim great virtues for tinned or coppered iron wires, as if lightning had as little electro motive force as a telegraph battery, and required such very nice conductors, in place of a good, solid iron rod, which can resist a strong discharge. Others again increase the surface by using corrugated rods, hollow tubes, flat bands, etc., as if the lightning discharges were as treble in quantity as those of a common friction electric machine, and passed only over the surface. But most of them are not careful enough to fit tight the main condition, a thorough ground connection; they appear to think that it is sufficient to stick the lower end of the wire one or two feet into the ground.

The latter neglect is the principal reason that many people have lost faith in lightning rods, because they have seen that many houses provided with them were not protected. The writer of this article has made it a special point to inspect houses which had been struck, and to study what are called the freaks of lightning. Among the many cases only one will be mentioned. A house in Germantown, near Philadelphia, supposed to be perfectly protected, was struck and considerably damaged. He found two fine lightning rods on the roof, while the conducting cable, all along its whole length, was carefully insulated by glass rings, but it was found to be also insulated at its lower end, being there stuck in the ground for a few inches only, while the ground was very dry, fine sand with pebbles; in fact the whole lightning rod was insulated. There is no doubt that if the lower ends of all the existing rods were examined, half would prove to be utterly useless, and perhaps 90 per cent. defective.

This is the cause of the singular fact that in this country where the great Franklin invented the lightning rod, and where it has been longer in extensive use than anywhere else, it is less effective, while in those countries of Europe where proper care is taken to provide for a thorough ground connection, buildings protected with lightning rods are never struck.

Among competent electricians who have given various opinions about the most advantageous methods of protecting buildings against lightning, there is no disagreement whatever in regard to considering a thorough and careful ground connection of the first importance. Some persons considered that points may attract thunder clouds, and have proposed metallic balls instead, but Nairn has proved by experiment that balls draw more explosive discharges than points, while the latter have the property to absorb and so discharge silently a great portion of the electric charge of a cloud over them, and in this way may prevent violent discharges. Reimarus proposed to omit points and balls altogether, and to provide only the protecting corners of a house with metallic coverings, and to connect these by conductors downward to a thorough ground connection. There is no doubt that many buildings are incidentally protected in this way by the metallic roof coverings and the water pipes, or iron columns inside. This has been proved to be the case in New York city with the Bible House, Cooper Institute, Times Building, etc.

We are perfectly satisfied that owners of property to be protected will do well not to trust the imperfect knowledge of the workmen, especially discarding the absurd notions of the lightning rod men, supervising the construction of lightning rods themselves, and keeping in view the above explanations.

Some Useful Information About Mortar.

There exists a prevailing error among many, that putting sand in lime is a kind of adulteration, and that builders injure owners of property when they use a little lime, and as much sand as possible in the mortar they employ for cementing bricks and stones together. In order to remove this error, and to show the all important junction of sand for securing strong masonry work, it is necessary to explain the nature of both ingredients. It is a very happy circumstance that all the materials which man needs in large quantities are abundant over the world. Among these materials lime and sand stand foremost. The first is produced by burning lime rock or shells, which process expels carbonic acid in the form of gas, both substances being a combination of lime with carbonic acid, which the heat drives out with some other incidental impurities. If the lime rock contains alumina or magnesia, which are also fire-proof, as well as the lime, they combine during the burning process with the lime, and if present in certain definite proportions, the result is a hydraulic lime which will set under water, while from pure lime rock and shells is formed what is called quick lime, for reason of its rapidly acting affinity for water and carbonic acid. If quick lime in lumps is exposed to air and moisture, it will gradually fall to powder and deteriorate, it will become slackened by moisture, and become deadened and worthless by the carbonic acid it absorbs; in fact it will become equivalent to powdered chalk. If, however, the quick lime is mixed with water to a paste, it may be kept for some time, especially if preserved in tanks out of contact with the air; if then this paste is mixed with sand it forms common mortar, which, in the course of time, especially when kept under the pressure of superincumbent weight, becomes very hard. If, however, this paste made of lime and water, is not mixed with sand, it will also set or harden slowly, but it will shrink and form a loose mass, and not keep the stones of a wall better together than chalk would do. This is curiously illustrated by the ruins of Fort Putnam, situated on the hill south of West Point, Hudson River. The stones there are all loose, as the mortar is crumbling to dust; probably the scarcity of sand on the top of the granite rock was the cause of the neglect to put in a sufficient quantity of the right kind.

The latter expression mentions a most important condition; the sand to be mixed with lime must be what is called sharp sand. That means sand which is not water-worn and of which the particles show no smooth surface when examined with a magnifying glass, as is the case with the sand of Coney Island. It should show angular, sharp edges, as is the case with river sand, which is never so much water worn as sand at a seashore, except where the shore is rapidly washing away, as is the case at Long Branch and other parts of the New Jersey coast, which, when screened to separate the pebbles, gives a sharp sand, well fit to make mortar.

Those unfamiliar with the subject will be surprised to hear that for making good mortar such large quantities of sand must be used; for every pound of lime six pounds of sand are required; as a rule, sand is the main ingredient, and it requires only as much lime as is necessary to fill up the interstices between the grains, in fact, no more lime than the sand will take up without increasing its bulk. When the lime is pure, its paste with water will be fatty, and such lime can stand even more sand; sandy lime, however, will stand less, and this is a point which it is best to let an experienced bricklayer decide. He may be deceived, however, when an impure, clayish sand is used; in this case the quantity of sand may be largely increased and still make a mortar of apparently the right consistency, but of course it will be of inferior quality, while sand containing organic impurities must never be used, of course.

Good mortar will set in a few days or a week, chiefly by the absorption of carbonic acid near the surface where it is exposed to the air. However, the true hardening process consists in a gradual combination of the lime with the silica, which is pure sand, and which, expressed in scientific terms, consists in the formation of silicate of lime in the interior of a wall. The process goes on so slowly that it takes years and even centuries to be completed, when at last the bricks of a wall will be as solidly cemented together as if it were a single piece of stone, and this explains the apparent superiority of the mortar used in olden times over that of the present day. When, occasionally, a wall which has been standing only a few years is taken down or falls by some careless operation, and the bricks are seen all to fall apart, people are inclined to grumble at the poor mortar used by the builder, not knowing the importance of time as an element of strength in masonry, of which very old buildings give occasionally striking illustrations. Nearly a century ago the French army invading Germany tried to blow up the square tower of the beautiful castle of Heidelberg with gunpowder. This tower had been built 800 years ago, and the stones were so well cemented together that the tower behaved like a single piece of stone, and all the effect was to cause a strong inclination or displacement and one single large crack, while of a building of recent structure submitted to such an ordeal no two stones would, perhaps, have remained together. Posterity will, no doubt, admire the strength of the mortar used to-day, especially as the structures built with inferior material will disappear and be unknown in future centuries, for the same reason that we do not know the inferior products of antiquity.

Some chemists have denied this gradual combination of the silica and lime, and assert that as soon as the lime has absorbed all the carbonic acid it can absorb, the hardening process is at an end, and that this takes place in one year. The reason of this denial is the difficulty to explain the gradual combination of two solid materials. Still, for all that, there are some facts which prove it.

In the first place, experiments have proved that the mortar inside a wall built 300 years ago was still caustic, that means had not been changed into carbonate of lime, and that part of the lime had combined with the silica. Further chemical analysis proved that when sand is mixed with quicklime there is at first no silicate of lime, but after one week one-half of one pound is found, after one month one per cent., in a year five per cent., etc.

This is, however, not the only cause of hardening; the absorption of carbonic acid goes no doubt on and contributes its share; this is proved by the fact that in place of silicious sand, a sand made of limestone can be used; this will harden also, but never become as hard as a mortar made with sand alone. There has been another cause of hardening suggested, namely, a crystallization of hydrate of lime, by the gradual combination of the lime with water.

As an illustration of the subtlety of chemical analysis, we will mention that some German chemist in analysing the effervescence formed on newly plastered walls, while they are drying, found them to consist in potash and soda compounds, which were taken up by the lime from the ashes of the fuel used when limestone was burned into quicklime.

Real Estate Department.

As was to be expected, this has been an extremely dull week at the sales-room, and in nearly every case property announced for sale has been postponed until after the opening of the coming year. The demand for very choice well-located lots continues, and some private contracts have been signed involving the transfer of the same. At the Register's office there has been little doing, the conveyances and mortgages both being quite light.

The most important sale of the week in the auction room was held on Friday by Bernard Smyth. This was a partition sale, the property being located on First and Second avenues and Clinton street, and for which good prices, as will be seen in another column, were obtained.

The block of land with houses thereon bounded by Third and Lexington avenues, One Hundred and Sixth and One Hundred and Seventh streets, has been mortgaged by Samuel H. Bailey, for \$891,600, of which sum the Mutual Life Insurance Company loan \$450,000. The particulars appear in the list of mortgages on another page.

The above block was sold under foreclosure in December, 1876, to satisfy a mortgage executed by Thomas J. Creamer, to August Belmont, on which was due about \$49,200. The purchaser was Benjamin Richardson, and the price, \$61,750, and it was again transferred in May last, to Mr. Bailey, the consideration as expressed in deed, being \$275,000.

An action has been commenced to foreclose two mortgages against the Windermere apartment house, located on the southwest corner of Fifty-seventh street and Ninth avenues.

The following official list of conveyances and mortgages for the past week, compared with the corresponding week of 1881 calls for little comment. It will be noticed that the money consideration is smaller this year, while the mortgages taken are heavier :

CONVEYANCES.			
	1881.	1882.	
	Dec. 22 to 28, inclusive.	Dec. 22 to 28, inclusive.	
Number.....	135	135	
Amount involved.....	\$2,359,948	\$1,466,164	
Number nominal.....	47	45	
Number of 23d and 24th Wards.....	9	15	
Amount involved.....	\$12,365	\$49,309	
Number nominal.....	2	2	
MORTGAGES.			
Number.....	153	165	
Amount involved.....	\$2,918,885	\$2,720,585	
No. at 5 per cent.....	24	24	
Amount involved.....	\$397,500	\$922,600	
No. to Banks, Trust and Insurance Companies.....	40	72	
Amount involved.....	\$386,421	\$1,158,400	

The annexed table gives the number of plans filed this year up to the hour of publication. It will be seen that we have reached the great figures of 1871. But at that time an unnatural real estate speculation was under way, and the figures are those of an inflated paper-money era. The progress of the city is shown by the fact that in a year notable for the absence of anything like speculation, we have spent as much money at a gold standard in the construction of houses, as we did when speculation was at fever heat in a paper-money period :

TABLE OF COMPARISONS.					
1869.....	2,014	\$34,517,692	1876.....	1,379	\$15,003,880
1869.....	2,349	40,352,055	1877.....	1,432	13,365,114
1870.....	2,351	34,068,998	1878.....	1,672	15,219,680
1871.....	2,782	42,658,391	1879.....	2,065	22,567,312
1872.....	1,728	27,884,870	1880.....	2,252	29,115,335
1873.....	1,311	24,936,535	1881.....	2,068	43,391,300
1874.....	1,383	16,867,417	*1882.....	2,560	44,770,186
1875.....	1,406	18,236,870			

* One day missing.

	1881.	1882.
Total No. buildings projected.....	2,586	*2,560
Total estimated cost.....	\$43,239,945	*\$44,770,186
No. south of 14th street.....	228	287
Cost.....	\$8,104,370	\$6,854,610
No. between 14th and 59th streets.....	497	430
Cost.....	\$13,436,185	\$13,312,716
No. between 59th and 125th streets, west of 8th av.....	139	177
Cost.....	\$2,035,400	\$3,159,100
No. between 59th and 125th streets, east of 5th av.....	1,166	954
Cost.....	\$16,274,750	\$14,990,375
No. between 110th and 125th streets, 5th and 8th avs.....	74	23
Cost.....	\$953,200	\$204,150
No. north of 125th street.....	265	219
Cost.....	\$2,922,200	\$4,464,622
No. Twenty-third and Twenty-fourth Wards.....	283	343
Cost.....	\$1,052,995	\$1,409,913

The buildings are classified as follows:

	No.	Cost.
Dwellings.....	585	\$9,700,743
Flats.....	570	17,164,100
Tenements.....	686	8,100,100
Hotels.....	8	552,000
Stores.....	116	3,277,500
Offices.....	24	1,403,645
Factories and Workshops.....	139	2,033,310
School Houses.....	4	161,000
Churches.....	17	562,000
Public Buildings, Municipal.....	8	200,000
Public Buildings, Halls, Asylums, &c.....	11	419,773
Stables.....	130	926,310
Frame Dwellings.....	215	505,798
Other Frame Buildings.....	47	197,865
Totals.....	2,560	\$44,770,186

From January 1 to December 23, inclusive—1882, the total number of buildings to alter which applications were made, was 1,672, to cost \$4,262,431 as against 1,494 for the same period last year at a cost of \$4,141,740.

Mr. Henry Campbell, of the Department of Buildings, in Brooklyn, furnishes the following interesting table of new buildings and alterations, from January 1, 1882, to December 23, inclusive :

Permits for new buildings.....	2,360
Estimated cost.....	\$10,336,769
New buildings completed.....	1,924
Estimated cost of same.....	\$8,458,406
Permits for alterations to buildings.....	784
Estimated cost.....	\$769,270
Alterations completed.....	735
Estimated cost of same.....	\$747,191

Gossip of the Week.

Denis Loonie has sold two of his five-story flat houses on Seventy-first street, between Second and Third avenues, to P. Schreyer, for \$42,000.

John D. Crimmins has sold the two three-story private dwellings, Nos. 218 and 250 East Sixty-eighth street, for \$27,000.

J. V. D. Wyckoff has sold the Preston farm at Glen Cove, Long Island, containing 107 acres of ground with the buildings and stock thereon, to William Trist Bailey, for \$30,000.

James A. Frame has sold nine five-story brown stone flat houses, five on Eighty-sixth street and four on Eighty-fifth street, commencing 100 feet west of First avenue, 25x65x100 each, to C. A. Buddensiek, for \$140,000.

J. V. D. Wyckoff has sold three lots on the north side of Eighty-fifth street, 150 feet east of Fifth avenue, 25x102.2 each, to Charles H. Bliss, for \$67,500, and three five-story brick and stone flat houses, 19x80 each, known as Nos. 1215, 1217 and 1219 Park avenue, to Matthias B. Smith, for \$120,000.

Messrs. Thomas & Eckerson have sold the property Nos. 147 and 149 West Thirty-second street, and Nos. 136 and 138 West Thirty-third street, with a gore, for Messrs. Ryerson & Brown, to Benedict Fischer for \$87,500.

Messrs. A. H. Muller & Son have sold the property Nos. 233 Broadway, being opposite to the postoffice, 19x118, to George Noakes for \$73,250.

Messrs. L. & T. H. Beeckman report the sale of the plot of ground comprising four city lots, on the northwest corner of Madison avenue and Seventy-sixth street, to Mr. Samuel T. Bennett.

The Dunham estate have sold the three-story brick house, No. 2 James street, to John C. Felton, for \$10,000.

V. K. Stevenson, Jr., has sold four lots on the south side of One Hundred and Thirtieth street, commencing 45 feet east of Madison avenue, and two lots on the north side of One Hundred and Twelfth st, commencing 95 feet east of Madison avenue, for \$36,000, to William H. Howell.

The sale of the property on the southwest corner of Lexington avenue and Fifty-third street, as reported in our last issue is said by Mr. Fountain to be incorrect, Mr. Davidson and Mr. Fountain having entered into a private arrangement in regard to the same, the particulars of which have not transpired.

John J. Clancy has sold two lots on the north side of Seventy-sixth street, 175 feet west of Eighth avenue, to J. B. Tompkins, for \$17,000.

V. K. Stevenson, Jr., has sold the four-story high stoop brown stone house, No. 56 West Fifty-seventh street, 25x65x100, to Isidor Cohnfeld, for \$80,000, and the four-story high stoop brown stone dwelling, No. 18 East Fifty-seventh street, 19 feet front, to Samuel Barton, for \$70,000.

Kate A. McCormack has sold the three-story brick house on the north side of Eighth street, 239 feet east of Avenue B, for \$6,150, to J. McCormack.

John D. Crimmins has purchased four lots on Seventy-seventh street, between Ninth and Tenth avenues, for \$22,000.

The reported sale of Booth's Theatre lacks any confirmation, and it seems altogether unlikely that Macy & Co. should want the property, as the building is not in any way suitable for a dry goods emporium.

Out Among the Builders.

The Church of the Holy Innocents propose to erect a new chapel on their plot of ground on the north side of One Hundred and Thirty-sixth street, between Sixth and Seventh avenues, 50x100. John Henry Buck will be the architect.

John Brandt has the plans in hand for the erection of two five-story brick, stone and terra cotta flat houses, on Seventy-sixth street, 105 feet west of Second avenue. They will be 25x80x100, with accommodations for four families on each floor. Mr. John J. MacDonald is the owner, and the cost will be \$33,000.

The four lots on the north side of One Hundred and Fifteenth street, 100 feet west of Fifth avenue, and the lots in the rear on the south side of One Hundred and Sixteenth street, 125 feet west of Fifth avenue, which were knocked down at the Salesroom last week to Mr. Thomas Kilpatrick, for \$34,700, were purchased for the Old Ladies' Home, of the Methodist Episcopal Church, who propose to erect a substantial building thereon for their own use.

Charles Riley proposes to erect a row of five-story brick tenement houses on the plot of ground on the north side of Forty-eighth street, commencing 100 feet west of Tenth avenue, 350x100.5.

James E. Ware has the plans underway for the erection of six four-story high stoop brown stone dwellings, on the northwest corner of Madison avenue and Seventy-sixth street. Five of them will front on the street and will be 20x55 each, while the house on the avenue will be 18 feet front. The owner is Samuel T. Bennett, and the estimated cost \$125,000.

Messrs. Thom & Wilson are preparing the designs for three five-story brick flat houses, to be erected on the southeast corner of Tenth avenue and Ninety-sixth street. Owners, Messrs. McCann & Nutt.

A company has been incorporated under the laws of 1853, authorizing the formation of corporations for the erection of buildings, under the title of the Bowling Green Building Company, with a capital of \$1,000,000 divided into 10,000 shares. The incorporators are William H. Grenelle, John O. Stevens and Louis S. Phillips. The company has not as yet purchased the property on which they propose to build.

A four-story flat house will be erected at No. 328 Broome street, 23x70x93.4, from designs drawn by William Graul. Owner, Thomas Patton.

Adolph Pfeiffer has prepared plans for the erection of a three-story flat house, 26.10x50, on the plot of ground on Third avenue, 110 feet north of Grove street, 43.10x216. The basement will be used for storage and laundry purposes. The owner is Christian Scherding, who originally filed plans for the erection of two houses on this property.

Mr. Zinsser is about to erect a four-story brick flat house and store on

the northwest corner of Tenth avenue and Fifty-eighth street, from plans by E. E. Raht.

J. H. Cheever is going to remodel the interior of the building, Nos. 13 and 15 Park Row. New floors and beams will be put in. Architect, George E. Harding.

Brooklyn.

Charles Werner has the plans in hand for a four-story and basement brick and stone residence, 25x71, to be erected on Lincoln place, 359 feet east of Seventh avenue. The house will be built for Henry Gallier, and the top floor fitted up as a studio; cost about \$25,000. Mr. Werner is also engaged on the plans for a three-story brick and stone private residence, 25x75, to be erected on the north side of Clinton avenue, between Myrtle and Willoughby avenues, which is to have a terrace all around on the basement, and to be situated in the centre of a large plot laid out as a garden. The house will have a Mansard roof, and cost about \$20,000. The same architect has the plans under way of two four-story brown stone houses, 25x50, to be erected on Portland avenue. Owner, Geo. Lichfield. Cost about \$13,000 each. Mr. Werner has the plans in hand, also, for the erection of a large factory on Flushing avenue, which is to cost about \$15,000.

J. J. Randall will soon commence the erection of a row of small dwellings on the west side of Lorimer street, near Norman av.

The First Baptist Church of Williamsburg, L. L., who recently purchased the plot of ground on the southeast corner of Lee avenue and Keap street, 100x89, propose to erect a church edifice thereon, and have already the sum of \$13,000 subscribed for this purpose.

Notice is given to property-owners that the assessment list for opening Webster avenue, from the Harlem Railroad to One Hundred and Eighty-fourth street, has been confirmed by the Supreme Court, and that all payments in conformity therewith must be made before February 9, 1883, at 2 P. M., or interest at the rate of 7 per cent. per annum will be added thereto. The same court has also approved the list for opening Sixty-seventh street, from Third avenue to East River, and interest at the same rate will be added on payments not made before February 19, 1883, at 2 P. M.

The large number of deaths from diphtheria, owing to defective drainage, is causing special inquiry at the present time. The numerous deaths from this destructive malady in Philadelphia recently caused the Board of Health to advise the public to be on their guard, and to furnish them with rules showing how the disease might be avoided. But no amount of care can stave off this fatal malady if the sanitary arrangements of the house are out of gear. There is so much inexperienced and bungling plumbing done now-a-days that few people know whether they are living in a safe house, excepting those whose means will allow them to have their drainage erected and scientifically tested by a sanitary engineer. There is, also, so much ignorance abroad that people who notice bad smells in their houses rarely guess the cause or take the trouble to drop a line to the Board of Health, so that their drainage may be tested. And it is only when the fatal disease attacks a member of the family, and when it is too late, that the doctor discovers and informs the sufferers of the cause of the malady. This is a matter of such importance that it should be spread far and wide, that wherever there is the least reason to suspect that the sewage pipes of a house are out of order, the occupants should, without delay, communicate with the owner or the Board of Health, and see to it that all danger from disease be thoroughly and permanently removed.

With a population of 183,000, Bradford, England, supports four art schools with an aggregate of 820 students, viz.: Mechanics' Institute, 162; Church Institute, 196; Grammar-school, 247; and Saltaire Institute, 215. Another school is about to be added to their number—the Technical school—and a master is already advertised for. There is much doubt as to whether there will be sufficient pupils for this fifth school, but the council are sanguine not only that pupils will be forthcoming, but that it will eventually become a most important institution. The whole of these schools are managed separately, the committees and masters of each being independent of the rest. If Bradford, with a population of less than 200,000, is capable of doing this, what ought not be done by New York city, which has a population approaching a million and a half?

A recent decision in Minneapolis has created some stir there. The owner of a building let the different stories, and in the somewhat informal agreement no stipulation was made by the tenants as to repairs, it being an understood matter that these were to be undertaken by the owner. Eventually the roof grew leaky, and during a rain storm, the water percolated through the walls and ruined the stock of a dealer in fire-arms and ammunition on the ground floor. The latter sued the owner for damages, but was non-suited, the court holding that the owner and general landlord is not bound to make repairs, even where the building is let in portions, unless he has agreed to do so, or the structure is shown to have become a nuisance.

A correspondent of the *Topfer Ziegler Zeitung* points out that quicklime can be divided into three classes: first, that which slakes into paste with water, and which may be called "whole burnt"; then there is "half burnt" lime, which contains hard lumps after slaking; and the "over burnt" lime, which, as its name implies, has either been subjected to too high a temperature, or has been burnt too long. In such cases there is an approach to vitrification, which is especially marked in limestone which contains clay. When it is desired to remove the two latter classes from a sample of lime, a layer of the material is to be spread out and sprinkled with water. When crumbling begins, it is easy to pick out the over-burnt and hard particles, and to continue the slaking by the continued addition of small quantities of water. Too hasty or excessive watering is to be avoided. The most suitable water for slaking lime is the softest that can be procured. In order to perfectly slake all the particles of lime, the paste should be allowed to stand at least fifteen days before use, and should, during this time, be kept covered with ashes or sand.

Shingles of Glass.

A manufacturing firm in Pittsburg, says the *Brick, Tile and Metal Review*, has made a new departure in the use of glass, a patent having recently been granted to them for the manufacture of glass shingles. It is claimed for this material that it is more durable, stronger and more impervious to rain than slate or any other substance now used. The manufacture of these shingles will also be comparatively inexpensive, and they can be placed in position by any ordinary workman. They can be used for weather-boarding or siding houses, and will be found especially serviceable for conservatories or hot-houses, as they can be made of transparent as well as of opaque or translucent glass. These shingles have the advantage of slate in several particulars. In consequence of their shape they lie solid on the roof, and so can be used on comparatively flat roofs, and they will admit of persons walking on them without danger of fracture, a quality which slate does not possess. They are interlocked so as to leave no interstices between them, and one rivet holds each pair of shingles, so that they cannot be forced from their places by wind or other atmospheric disturbances. They are also made so as to have very little waste material. It takes 300 slates, each 8x12 inches, to cover what is technically known as a "square" of roof (a space measuring ten feet each way), but 150 of these shingles will suffice for the same space. Slates lap on the ends in the roofing, but the shingles lap on the sides. It has been proved by experiment that of two adjacent houses, one covered with slate and the other with translucent glass, the heat of a room near the roof in the former building will exceed that of one similarly situated in the latter, during summer, by thirteen degrees, glass being a non-conductor of heat. Houses with glass roofs are also warmer in winter. Glass is likewise a non-conductor of electricity, and houses with these roofs will need no lightning conductors. Although the kind of glass intended to be used in these shingles is non-transparent, yet spaces for sky-lights may be filled with transparent glass. The exposed parts of the shingles are corrugated to increase the strength and carry off the water. The firm will construct the shingles in handsome diamond shapes, and they can be supplied in any color required, or of no color if preferred. A roof with colored border and opalescent body is said to be very handsome.

The Crazy Land Speculation in the Northwest.

"Everybody is crazy. I expect I am crazy, too!" was the frank confession of a Minneapolis business man, when I asked him what he meant by asking—and getting—such prices as he did for real estate. He was selling lots nearly four miles from the business centre of Minneapolis about as fast as he could make out the deeds, he said, for \$500, \$1,000 and \$1,200 a piece. Small lots. Cost him, a year or so ago, about \$100 to \$120.

"But half of them have no sidewalks—no roads, even?"

"That's so. The town grows so fast we haven't time to build streets, sidewalks, sewers, water-mains, gas-pipes, or anything else. Why, look at those houses, will you? Dozens of 'em, with people living in 'em, and only the insides of 'em built. They are plastered inside, then outside of that is a casing of wood; outside the casing is a covering of thick, heavy, tough brown paper—keeps out the cold wonderfully, sir, wonderfully. Then, as fast as they get time and money, they will put on the weather-boarding, and make all tight and winter-proof. Most of them have a little round cellar—a kind of dry cistern—under the middle of the floor, which will keep vegetables and such like from freezing. Where they can they build this two stories deep, and then it's as safe as one of your cellars at home. But Lord bless you! they can't take time to make streets and sidewalks, while everybody is so busy scratching gravel to get under cover before the first November cold snap comes along."

Sawdust is said to be better than hair in protecting rough-cast from peeling and scaling under the influence of frost and weather. The sawdust should be first dried and then thoroughly sifted, in order to remove the coarser particles. A mixture is then made of two parts sawdust, five parts sharp sand and one part cement, which should be thoroughly stirred together and then incorporated with two parts of lime.

At the recent inauguration of the forty-first session of the British Architectural Association, the President, Edward G. Hayes, made, *inter alia*, the following observations: "He was of opinion that the formation of a new and distinct architectural style was an impossibility. What was called 'style' was a combination in the masses and voids, and in the details and ornament of certain distinctive forms; and if, as most people believe, these combinations had in the past been well-nigh exhausted, the best thing possible was to adopt such a period of work as architects or clients thought best suited for the purposes, and to design their buildings in accordance therewith. If critics would supply a few brand-new forms suitable, say, for window openings, and some combinations of fresh outlines for use in tracery, the profession would be very glad to adopt them. Architects were charged with being copyists; but, as a matter of fact, they could arrange new combinations in their designs of any style to suit site and requirements, and as much knowledge, ingenuity, and originality were required to do this as would have been the case had they been living at the period when the particular style selected was in vogue. During the revival of Gothic, buildings of all kinds had been erected which had carried on the tradition and feeling of the style in a perfect manner, a manner which could no more be charged with being a copy of the old work than could one building of the 12th century be said to be copied from another of the same date. This revival of different periods still continued, and might almost be said to have been developed in new ways in consequence of the introduction of new materials. The subsequent revival, chiefly for secular buildings, of the work known as Queen Anne, had given scope for great originality of idea, and was likely to hold its own for some time to come. It was still open to us to use more largely mixtures in the architectural art. An extreme instance of this, more curious than beautiful in its effect, was the entrance gateway to the old schools at Oxford, and there were many examples of work carried out in the 16th and 17th centuries in which Gothic and Classic forms were combined with happy results. Thus it was that the current of thought in the architectural world flowed along—at times somewhat slowly and sluggishly, and then again full of life and energy. Their aim as architects should be to breathe into their designs that nameless spirit which should pervade every architectural work, and which was necessary to raise it above the sphere of mere building into a thing of beauty and a joy forever."

A cistern on a new principle for flushing lavatories, closets, &c., has been patented in Birmingham, England, and is being extensively adopted by corporate and other bodies for use both in public and private buildings. It consists of a small tank calculated to contain the exact quantity of water required for each flushing, and no more. The feeding arrangement is of the ordinary ball-tap; but for emptying the cistern, the patentees substitute for the customary valve, which is so liable to get out of order, and which requires to be forcibly kept open while the flushing is in progress, a siphon controlled by a cap. A single pull of the lever suffices to raise the cap and admit the water to the siphon, which then becomes self-acting, with a copious discharge increasing in velocity till the cistern is empty, when the ball-top renews the supply. The cistern has been adopted by the Birmingham Corporation and other water authorities, and is being extensively used for railway stations, barracks, prisons, workhouses, &c.

BUILDING MATERIAL MARKET.

BRICKS.—Taken all in all the market for Common Bricks differs only slightly from last week but if anything the showing is a trifle better for the selling interest.

HARDWARE.—The demand has been almost at a standstill and the market may be briefly stated at "nominally unchanged."

LATH.—One of the peculiarities of this market is that just about the time receivers "expect no stock for quite a while" vessels commence to be reported from City Island in greater numbers.

LIME.—Demand enough prevails to exhaust all the stock offered from first hands, and the indications are that a larger amount could be placed.

LUMBER.—As building operations have been pushed forward to get "under cover" the distribution of lumber on old engagements is diminishing.

White Pine for home use continues to sell rather slowly, and principally in small lots, as wanted for immediate consumption.

has been some demand, but mostly in the regular run of shipping goods still feel that the movement for export to Jamaica has already benefited the market.

Yellow Pine of common and inferior quality continues to find a flat and unsatisfactory market, and not much change for the better is likely until the accumulation on hand can be worked off.

Hardwoods have two distinct markets apparently according to quality of stock offering. Really choice goods are meeting with fair and some instances positive attention.

Shingles have been in good enough demand to prevent any accumulation of stock, and receivers say they could place a larger quantity if it were here.

A Dutch brig, 297 tons, Portland to Montevideo or Buenos Ayres, lumber, \$14 net; a Br. barque, 449 tons, Brunswick to Montevideo for orders, lumber, \$20 net.

GENERAL LUMBER NOTES.

THE WEST.

The Northwestern Lumberman as follows:

The tone of every letter from the loggers, received by the Lumberman, is to the effect that the effort will be general this season to secure every log possible.

CHICAGO.

AT THE DOCKS.—With the close of navigation comes a cessation of business at the Franklin street docks, yet the ice does not prevent an occasional arrival of lumber by lake.

The receipts of the week, mostly by rail, aggregated 3,448,000 feet of lumber and 1,367,000 shingles.

The amount of stock on hand in the yards here is a matter of much interest to the yard men. The amount on December 1, as reported by the secretary of the Exchange, was 719,458,412 feet.

The advent of winter has had about the usual effect upon the hardwood trade toward making it less active.

The walnut branch of the trade continues at a standstill, and some handlers of that lumber are not

in the most salubrious spirits possible. The trade in all lumber is of a piece-meal character, which drifts into the yards from various sources, and is barely entitled to a distinctive designation.

LUMBERMAN AND MANUFACTURER, MINNEAPOLIS, MINN.

There is [so little that is new or interesting in the lumber trade during December that it is difficult to mention any special points.

Considering the season the trade continues large, particularly during the severe weather of the past few days. We note some orders for half a million and over received since Thanksgiving day from the northwest.

From a logging stand point the winter is a most favorable one for lumbermen. From a foot to sixteen inches of snow lays over the whole pine region

No changes are looked for in lists and no cutting intimated outside of Chicago.

Stocks on hand although large are not excessive and will undoubtedly be reduced to a minimum before the manufacturing season of 1883 opens.

CANADA.

THE QUEBEC TIMBER TRADE.

Messrs. J. Bell Forsyth & Co., in their annual circular, furnishes some interesting matter, from which the following extracts are made:

Timber merchants have found the year a satisfactory one. There has been, says the circular, no over production, and the trade in lumber and timber, as a rule, has been conducted on a sound and healthy basis.

Difficulty is still found in procuring first class pine, while the demand has been fair in Great Britain, where the stocks at present held are light.

The supply of red pine has been ample, although light, choice wood being in this case, also, in request. The decline in ship-building has stopped the local demand for very common wood.

In pine deals while early in the season there was a very fair demand, it fell off during the summer months. Towards the autumn, however, a much better feeling prevailed, which is still maintained.

Table with columns: Supply, Export, Stock. 1882: 4,611,875, 3,148,688, 2,507,704. 1881: 4,253,285, 3,876,187, 1,708,597.

As to spruce deals the circular reports that owing to exceptionally high waters the rivers were entirely cleared of logs, which led to a larger manufacture than in 1881.

Table with columns: Supply, Export, Stock. 1882: 3,239,950, 2,787,309, 1,012,920. 1881: 1,590,487, 3,097,342, 810,028.

NAILS.—There has been only a light business doing on either home or export orders and the market ruled flat throughout. Stocks ample and generally to be found available.

We quote at 10d to 60d, common fence and sheathing, per keg, \$3.65; 8d and 9d, common do., per keg, \$4.00; 6d and 7c, common do., per keg, \$4.25; 4d and 5d, common do., per keg, \$4.50; 3d, per keg, \$5.30; 3d, fine, per keg, \$6.00; 2d, per keg, \$6.00.

Clinch Nails.—1½ inch, \$6.25; 1¼ inch, \$6.00; 2 inch, \$5.75; 2¼ inch, \$5.50; 3 inch and longer, \$5.25.

PAINTS AND OILS.—A few mail orders and some small local calls have afforded the main basis for the movement of stocks, and the market as a whole was