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READY TO-DAY.

The Index to Volume LXV of the Record and Guide, covering the period between January 1st and June 30th, 1900, will be ready for delivery July 28th. Price, $1. This Index in its enlarged form is now recognized as indispensable to every one engaged or interested in real estate and building operations. It covers all transactions—deeds, mortgages, leases, auction sales, building plans filed, etc. Orders for the Index should be sent at once to the office of publication, 14 and 16 Vesey Street.

THE stock market during the week past has been dull, uncertain, with the general list about where it stood at the opening. The efforts made to advance quotations were, in a marked way, only momentarily successful. The fact is the market at present is so completely dominated by the uncertain situation in China, that it is vain to expect our strong commercial and financial position at home to have its full effect upon prices. Of course, at any moment the fog that lies over China may lift, but until something like a clear view of the situation can be taken, caution and uncertainty are not only inevitable but even desirable. The entire world to-day is hesitating, the United States being, undoubtedly, the most optimistic spot. Were we concerned wholly with our own home affairs, there would scarcely be a single disturbing fact for anyone's consideration. The recent rains furnished a strong guarantee for the corn crop, cotton is in an improving condition, the financial status of both the Government and the banks is exceedingly strong and although there has been a slight falling off in the amount of general business, the volume is still very large and the diminution is only due to a conservatism that is itself healthy. A year ago people were buying largely in anticipation of increased demand and higher prices. The tendency then was to slightly exaggerate the future in both these respects. To-day, perhaps, people are somewhat prone to go too far in the other direction, particularly in looking for lower prices. For the time being they are content to buy as little as possible and prefer to be understocked rather than overstocked. Unless the trouble in the East developes other complications than those involved in a contest between the Powers as a unit on the one hand and China on the other, this will only be temporary.

THE Chinese situation deserves to be very closely studied as an exhibition of international morals. It affords an opportunity, if we will only keep our conscience at work, of getting a clear idea of the actual governing tenets of nations who call themselves "civilized." When one "civilized" nation sets out to cut the throat of another "civilized" nation under high sounding pleas, the situation lacks the contrast that exists in this case when all the chief "civilized" powers of the world are dealing with a distinctly "heathen" people, whom their missionaries have been trying to convert for hundreds of years. How, in this case, will "civilization" work? What motive will actuate it? Along what lines will it proceed? What end will it accomplish? Theoretically, of course, it ought to be high-minded and unselfish, lenient to its enemies, protecting the weak. But, so far, Europeans have dealt with China in a positively shameful manner. Almost every step that has been taken has been in flagrant disregard of the moral code. They have dealt with the Chinaman with about as much Christian spirit as the conquering Tartars themselves, centuries ago, possessed for their enemies. They have been arbitrary, covetous, mean and tyrannical. They have murdered unnecessarily, and have stolen under every possible plea. Let anyone consider for a moment what his judgment on China would be if the Chinese had been powerful and had done to Germany or Russia, to Great Britain or the United States the things that those nations have inflicted upon China. The only country whose fingers are at all clean is the United States, but even we have been inconsistent and have endeavored to exclude the Chinamen from our shores, while, at the same time, insisting, despite China's wishes, that that country should receive our people and our merchandise. We do not, of course, mean to be understood as upholding or sanctioning in any way the recent events in China. Such work cannot be tolerated, and merits the severest punishment, but no one can speak fairly on the subject or judge righteously until he keeps in mind the long list of provocations that have produced the present uprising and hatred of the "foreign devil." The conduct of the "allies," their dissensions, their scarcely veiled covetousness are almost as sad a reflection on human nature as the bloody events in Pekin. The United States is the only nation that seems to be acting with some consideration of high-minded principles. We sincerely hope that nothing will change this country's policy. It may in the end leaven the dirty mass of mean motives which Europe has centered in the Orient.

BUSINESS in the public and private real estate sales market continues to be wholly perfunctory in character. However, quietness in these branches is not without some advantages. Whenever summer activity is in any way pronounced it is usually composed of professional trading with a view to further production of new buildings. There are ordinarily very few investment transactions concluded at this season. The present dullness, in so far as it is more pronounced than usual, is due to the absence of preparation for building flats and tenements, which has for several years constituted the bulk of the building industry. The demand for lots uptown and on the lower East Side is exceptionally small, these being the sections where construction by the speculative builder has been particularly active. On the other hand, the fall in the price of building materials is inducing builders to undertake operations in the neglected mercantile districts. This is commented upon elsewhere, and is the most conspicuous feature of this week's news. It is announced that John T. Williams will build a 12-story structure at Nos. 114 to 118 Liberty street. The section just north of 42d street is also receiving attention, No. 57 West 45th street having been sold this week to L. C. Mosher, who will erect a 9½-story apartment hotel, which has been leased for twenty-one years to A. W. Eager, the owner of the Schuyler, which it adjoins and with which it will be connected, as will also No. 63, on which a similar structure is now building, and which has also been leased to Mr. Eager.

SLOWLY but surely the decline in the prices of building materials to a normal point is beginning to revive operations which the sharp advance checked early this year. We have been able to speak in these columns lately of a number of large and costly buildings, the foundations of which will soon be started. We also know that a number of projects are now in their final preparatory state and are only waiting the return of owners from the country to be put into the stage of actual work. Prophesying, of course, is always a dangerous business—there are so many ways of being tripped up. This much, however, may be said: The lower range of building materials is now beginning to be felt as a sort of pressure stimulating building. The prices of all staple materials have certainly reached a point very much below which they are not likely to go for some time to come. Whatever small concessions are to be gained in the future by a waiting policy will be more than offset by the value of the time lost. As a matter of fact, it is not probable that anything will be gained by delaying, because as soon as there is greater activity, material men will stiffen in their demands and will refuse to figure as closely as they are undoubtedly ready to do to-day for good orders.

EVEN Mayor Van Wyck must now see how unfortunate for the city's interest was his veto of the Dock Department Bill. In consequence of this veto the department was deprived of the necessary money for the improvement of the North River pier system, from Bloomfield street to 23d street. Now, unfortunately, it is exactly within this section that the North-German Lloyd must locate, if that company is to make New York the starting point for its steamers instead of Hoboken. No doubt, even under the present circumstances, something can and will be done to accommodate the steamship company, but the ridiculous management of this city is well exemplified in this case. Here we see "held up" one of the few successful pecuniary enterprises of the Municipality, while elsewhere money is appropriated without stint for undertakings of doubtful utility, though perhaps of more political value. Any common-sense person would imagine that New York City, being a commercial seaport, bid-

ding as it is for the traffic of the world, would leave nothing undone to perfect its dock facilities. It would be supposed that this would be the very last direction in which penuriousness would be exercised. Here is a matter upon which the welfare of the city depends. Every other seaport in the country is in competition with New York, and statistics clearly show that our rivals are taking away from us traffic that would certainly come to this port if we made the proper preparation to receive it. The Dock Department has done the best it possibly can, but it has been hampered by the city's uncommercial policy. The big steamship lines should never have been allowed to go across the river.

The Commercial Architect—and the Other.

To the Editor of THE RECORD AND GUIDE:

Probably other people have been struck by a fact which at times has seemed to me rather curious, namely: that the designing of so many important buildings is entrusted by owners to what I may call the hustling commercial architect, rather than to the educated professional man. There are architectural firms and individuals in this city who do a great deal of work, regarding the artistic merit of which we all shrug our shoulders. Nevertheless, these men are given a great deal of business, and receive commission after commission from the same owner. Why is it? The fact that their work is severely criticized by architectural and other papers does not seem to affect their standing with their employers. I am sure that seven-eighths of our large apartment houses, and perhaps three-fourths of our large commercial buildings are entrusted to men who are not noted for their architectural capabilities, for their artistical capacity, or for their high standing in their profession.

I have had occasion recently to get my eyes opened as to the reason of this, and the result to-day is that if I were going to put up another building I would doubtless select what I call the "commercial architect" in preference to his confrere, the artistic architect. I am not going into my own personal reason for complaint, but I would like to express my conviction through the Record and Guide that the sooner the artistic architect gives more careful attention to the practical necessities of the building he is designing, rather than to matters of facade and decoration, the better it will be for his client and for his own reputation. I know of a new apartment house in this city, the front of which is architecturally very successful. It is the work of one of our leading architects. Competent critics praise it very highly, but I am sorry to say the admiration of the passer by is not shared by the tenants, who find that the rooms within are so poorly planned that it is almost impossible to properly place the necessary furniture in their apartments. Externally, no doubt, the bulls'-eye windows are effective—effective, perhaps, in direct proportion to their internal ineffectiveness as inlets for light and air. The hallways, too, are very beautiful in their vesture of polished marble and hardwood trim, but they are entirely too narrow to be adequate, and I believe that the owner's money would have been more wisely spent if some of the decorations had been dispensed with, and instead better accommodations provided for the tenants. A large percentage of the rooms are unnecessarily dark, because of poor planning, and I am among those that hold that the fact that the entrance has a very sumptuous external appearance, does not compensate for the fact that the rooms were turned over to the proprietor and his tenants without electric bells or any other means of communication or announcement.

Other cases of a similar kind will, no doubt, readily come to the minds of your readers. I have lately talked with many persons, and their experiences with the artist-architect would make very lively and humorous reading.

On the street adjacent to the one in which stands the apartment house I have been speaking of, there happens to be another similar building of execrable external features. It is an architectural hodge-podge without beginning, middle or end, but when you enter the building you are struck with the fact that the rooms are light and well arranged, that the windows are large and square and well-placed, that the halls are ample, that the building is completely equipped with all modern improvements. It is the work of the "commercial architect," whose artistic instinct may be rather dull, but who, like the engineer, has a keen appreciation of the fact that he is working for a client and not for "art." PHILISTINE.

A well-known architect was once asked by one of his young men: What is the first step in dealing with a client. He replied: Knock him down and get some architecture out of him. The hard part of our correspondent's case seems to have been that the "architecture" was taken out of him without the preliminary attack. We sympathize with him because the goods he has purchased are not of the kind that can be "cheerfully exchanged or money refunded" by even the most conscientious architect. Nothing remains to be done that we can see but for him to dispose of all intractable furniture and make himself as comfortable as he can behind his bull-eye windows, conscious at last of the important fact that art, as with all other matters, has literally two sides to it. It is almost too much to ask the architect to please the critic on the street and at the same time the tenant in the house, and we all know, in making a choice, on which side the professional man will lean. What he wants from the client is not a problem in plumbing, nor an exercise in engineering—these matters are more often than not handed over to "tradesmen," or to subordinates. The interest of the architect is centred in the facade, that is, in the "architecture" of the job.

We must warn our correspondent, however, not to be too sweeping in his indictment or in his judgment. Our "leading" architects to-day are not all chargeable by any means with being artistical. The tendency rather is for the successful individual, or firm, to pass over as soon as possible to the other side—the "commercial" side, as he puts it. The factory principle is rapidly taking hold of architecture, and everybody knows how inexorably, how brutally even that principle makes for the bald utilities. The aesthetic idea has no chance in this rough competition. The demand to-day is really not for the architect as artist, but for the architect as engineer. It is, indeed, the engineer who deserves pretty nearly all credit for the development of modern American building. And in the end demand will create the man, and complete the metamorphosis of the architect. Bulls'-eye windows, orders that support nothing, arches that carry only their own voussoirs, scraps of mock antique carving, will then be, thank Heaven, omitted from our buildings, just as they are omitted to-day from our bridges, and owners like our correspondent will not then be called upon to pay four per cent. upon "pure architecture." We won't in those times be beautiful, but then these are not days of beauty, and after all is not dull sincerity even a better thing than the pseudo-art of the portfolio and photograph from which the esthete evokes his superficial sensations?

WASHINGTON HEIGHTS was clearly destined to be the centre of a great deal of real estate activity. Its natural advantages for residential purposes are very striking. We doubt whether any city in the world possesses a more charming site. After the development of the lower West Side it was naturally expected that Washington Heights would be the seat of the next big building movement in New York City. No doubt a great deal has already been done, much of it of a high and excellent character, but the fact that the district has not been completely seized upon by the builder and rapidly populated is due to the lack of abundant rapid transit facilities, such, for instance, as the lower West Side possessed for years before the builder invaded it in force. Everything comes, however, in time, even to the northern part of New York city, a section that has been shamefully neglected, while the municipality has been planning bridges and tunnels to get people across the East River. The good news was announced this week that the spur connecting the system of the Metropolitan surface road with the Third avenue line, at 125th street and Amsterdam avenue, was completed and in operation, so that residents of the Heights are now served by the cars of both systems of transit, and can move as freely down the West Side as down the East Side of the city. This is a very distinct advantage, and one that is likely to have a prompt effect upon real estate conditions. The Metropolitan company deserve to be complimented for their ready appreciation of their patrons' wants and for their readiness to meet all reasonable requirements.

THE JERSEY CITY WATER-WORKS.

The new Jersey City water-works are being constructed by the Jersey City Water Supply Company under a single contract which calls for a water-shed and storage reservoir sites capable of collecting and delivering at all times 70,000,000 gallons of water daily, and a reservoir and conduit with a preliminary capacity of 50,000,000 gallons daily, to be increased later to 70,000,000 gallons daily by the raising of the dam at the intake and the addition of another line of steel pipe. P. H. Flynn, Brooklyn, N. Y., has been awarded the entire contract at $7,595,000. The entire work is to be finished by March 1, 1902.

The Value of Water Meters.

The value of water meters is well shown by a case mentioned in the annual report of Superintendent John B. Heim, of the Madison, Wis., water-works. In a tenement in that city which would pay $10.50 annually at schedule rates, the meter bills ranged from $2.25 to $6.45 for periods of six months. Another family moved in, and the water bill in one month was run up to $23.40 The family had come from Chicago, where everything was left wide open, and the presence of the telltale meter proved a shock The head of the family was evidently an amateur specialist in hygiene, for the water was intentionally allowed to run in the water-closet for a part of the time after the first reading of the meter. This needless contribution to the city sewage raised the family bill to $30.25 for four months.—Engineering Record.

What the Building World Talks of

FACTS, IDEAS, NOVELTIES.

To Remove Oil From Marble.

The following recipes for removing oil from marble are taken from the "Stonemason," and may prove of interest to some of our readers: Mix 2 ounces of aqua ammonia, 1 quart of rain water, 1 teaspoonful of saltpeter and 1 ounce of shaving soap, shaved fine, and see that the soap is well dissolved. Then apply to the marble, and after a time wash it off. If the marble be so saturated that one application is not sufficient, renew it. Another method is to mix 1 part of soft soap, 2 parts of fuller's earth, and 1 part of potash into a thin paste with boiling water, and lay it on the spots and let it remain for a few hours, then wash off. If the marble is saturated the oil may be removed from the surface, but after a time will reappear from underneath, when another application will be necessary.

Machine Shops, Etc.

Charles Hansel says the supreme importance of low cost power in all industries is now universally conceded, and the close student of power follows with interest the rapid advancement in this basic field of industry. A comparison of the thermo-dynamic value of various sources of power with the latest achievements in steam engineering indicates that we shall never get the highest obtainable efficiency by means of the steam engine.

Mr. George Westinghouse says: "Long familiarity with the electrical industry; the pipe line transportation of natural gas in great quantities; and an active interest in the development of large gas engines, satisfy me that the economies which will result from the distribution of power by means of gas generated at central points, and conveyed in pipes along the lines of railroad for the operation of engines and electric generators, will be sufficient to justify the expenditure of the capital necessary for such installations in connection with the electrical equipment of railroads, particularly metropolitan and suburban lines." While the general public may not, at this time, be prepared to give unqualified indorsement to this opinion, the broad experience of Mr. Westinghouse entitles him to believe that it will receive universal consideration and cause us to give more thought to the magnitude of the wasted energy in the consumption of coal for producing steam.

Porosity of Cement Mortar.

While the requirements of submarine work call for materials and mortar of great density or water-proof resistance, the conditions of building for above ground habitation are somewhat opposite, if we may accept the views of the "Schweizerische Bauzeitung." In the so-called "high" construction, it seems, a reasonable amount of porosity is of advantage on account of the less amount of conductivity of heat and cold, although the porosity should not be too great, as it would then become a detrimental absorbent of moisture in rainy weather. So far, there are but few records of the exact porousness which would admit of air passing through or absorption by capillary actions of different cement and lime mortars. One of the most noteworthy, which is determined by careful tests, was made by Professor Lang, who made examinations of different artificial building blocks, mortars and cements, both in their dry and wet condition, of which the following table shows the proportion of air passing through different materials at ordinary pressure or exposure:

Materials.	Dry.	Wet.
Lime mortar	1.00	0.07
Portland cement mortar	0.15	0.00
Portland cement concrete	0.40	0.00

The above shows that there is no communication of air through wet cement work of any kind, under natural, ordinary conditions as occurring in general buildings. In the dry state, cements have about 1-7 the porosity of common lime mortars. It is estimated that with the density and non-affinity for air the ability of drying out or evaporation of moisture from cement work is also lessened, which goes forward comparatively speedy in lime mortars. —Carpentry and Building.

The "Herculean" Terra Cotta Arch.

Henry Maurer & Son, No. 420 East 23d street, New York, have issued an attractively illustrated pamphlet which describes a novel method of fireproof construction that has been brought out by this firm. They are manufacturers of fireproofing and fire brick at Maurer, N. J., on the line of the Central Railroad of New Jersey. Their method of floor construction dispenses with steel beams and girders. Hollow terra cotta blocks, grooved on the sides, are used which are 12 to 18 inches long and 4 to 14 inches deep, the sizes governed by the span of the arch contemplated. The arch is sprung from wall to wall, and T-shaped iron bars are inserted in the grooves on the sides of the blocks. These grooves are so placed that each bar locks two rows of blocks. The bars are thoroughly imbedded in cement, and, fitting into the terra cotta grooves, are perfectly fire protected with a covering of never less than 2 inches of material. The shapes of the blocks and the method of their union with the tie rods form an arch of such strength that it is adapted to spans up to 25 feet. The firm have made extensive tests of an arch of this construction spanning 20 feet in the clear and 12 inches in depth. This arch loaded with 510 pounds to the square foot, and the load left on for several months, showed a deflection of but 9-16-inch in the middle. The load being removed, the arch sprung back to its original position.

The Proportions of Concrete.

"The Proportions of Concrete" are discussed in a brief article by Mr. G. J. Morrison in the last "Proceedings" of the Institution of Civil Engineers. He says: "Decide tentatively on the quantity of large and small stones, if necessary trying two or three proportions. Add sand by degrees till the mixture, after being well turned over and shaken down, shows a decided increase in bulk, at least 5 per cent., then add cement to an amount equal to between one-third and one-half of the sand. Then, taking the amount of cement as unity, a specification can be drawn accordingly. Within these limits all concrete will be strong and solid, and the mixture of stones which requires the least sand will be the most economical. For many purposes cement equal to one-third of the sand is sufficient, but an increase in quantity up to one-half will give a concrete stronger and more impervious to water. If, however, it is attempted to improve a fairly good concrete, made with a ratio of sand to cement of 3 to 1, by reducing the sand it will probably be ruined; on the other hand, concrete that is honeycombed may often be improved by the addition of sand or gravel, that is to say, a well-proportioned so-called 8 to 1 concrete may be better than a badly proportioned so-called 7 to 1. It need hardly be stated that if gravel be used containing sand the sand must be separated for the experimental mixture, and the specification modified accordingly; but while the specification provides the basis of a contract, or a basis on which the particular work is to be carried out, a description giving the proportions of various-sized stones and sand, and the increase of bulk by the addition of each constituent to the first lot of large stone (for each addition should give an increase and not be entirely lost in the voids) is necessary as a guide for other works."—Engineering Record.

Spruce Lumber.

A subscriber from Manitoba makes inquiry concerning spruce lumber on this side the international boundary, its value and strength as compared with white pine. Native spruce lumber is practically unknown as such in the commerce of the three leading white pine states. Such spruce as grows in the states is principally used as pulp wood. In nearly all white pine logging operations, however, a few spruce logs are cut, but they go as white pine, while the lumber from them cannot be distinguished by the ordinary lumberman from Norway pine lumber. These logs are commonly cut into dimension—as they are small. They will average more nearly clear than the white pine with which they grow, and are harder, heavier and stronger than white pine, being very similar in these qualities to Norway pine. Such lumber is never quoted as such in these white pine states.

The only other spruce lumber near the northern international boundary is that manufactured in Maine and New York State, in eastern Oregon, Idaho and Montana, and on the Pacific slope—notably in Washington state. The three spruces of these sections named are as different in their nature as though they had not a common name. The eastern spruce is much like the spruce of the three white pine states, except that a larger percentage of merchantable lumber can be cut from it. It sells in the New York market in large lots at from $16 to $19. It is largely used as dimension. The mountain spruce compares with the eastern and western coast spruce about as any mountain timber does with any coast timber. The inclination is towards knots, wind shakes, and other defects common to timber of high altitudes. Such spruce as is cut in these mountain states compares very favorably, however, with the mountain white, yellow and "bull" pine, and fir. It makes as good dimension as any mountain tree.

The west coast spruce is of large growth, is harder than cedar or sugar pine. In this respect it more resembles coast hemlock, being, however, of rather finer grain. It is used very extensively as siding, ceiling and finish lumber, having proven itself one of the best substitutes for white pine in these lines that can be found. Its value as siding, ceiling and finish is about the same as coast cedar, and more than fir. It is slightly heavier than cedar and about the same weight as white pine. Nothing but clear spruce is shipped east because of high freights. Little spruce dimension is used on the coast because of the cheapness of fir.—The Mississippi Lumberman.

A Noise-Proof House.

It is stated that a man in Chicago has recently completed what is claimed to be a noise-proof house, as a protection to himself and his family against street dins. The house is pointed to by the anti-noise agitators as a possible solace to persons suffering from midnight cat cries, dog barks and railroad whistle screechings, and daybreak crowing of roosters, banging of delivery wagons and rattling of coal shovelers.

The plan is the filling of all cracks and apertures in the house which might admit sound with a material so constructed as to afford access of air while shutting out noise. The material which the owner says discriminates between noise and air is in the form of strips of rubber, perforated with zigzag holes.

Through this the air is admitted, while the noise is softened or completely deadened, the sound waves dying out in repeated reflections in the crooked passages. These strips of rubber have been placed over all cracks around the doors and windows of the house, and two months' experience with the plan has convinced the owner, he says, of its practicability.—Carpentry and Building.

Central Heating System.

At Toledo, Ohio, there is a new heating plant in connection with the electric light plant for warming houses from a central source. The hot-water system is employed, the water being circulated through mains carefully protected by insulation, there being one pipe for the outflow of hot water impelled by pumps, and one for the return. For heating the water, heaters of the tubular type are employed, receiving the exhaust steam from the engines that are used at the station for generating the electricity for lighting. So successful is this system that the receipt from the lighting was sufficient to cover the expenses of both the lighting and heating plants, leaving the receipts from the heating as net profits. A pressure of 60 pounds is maintained on the feed line during cold weather and 40 pounds during moderate weather. The water reaches the extreme end of the lines three-quarters of a mile distant with a loss of twelve degrees in the coldest weather. The surface pipe to the various houses are 1-inch pipe, and the return line throttled with a disc inside the building, the size of opening depending upon the quantity of radiation, but average ⅝ of an inch. The houses are equipped with radiation sufficient to heat them to a temperature of 70 degrees Fahr., with water entering the house at 160 degrees Fahr., when the outside temperature is freezing. By raising or lowering the temperature of water one degree for each degree of variation in the outside temperature, we are able to maintain a constant temperature in the houses during all kinds of weather.—Steam Engineering.

Gas Ventilation.

It seems that light, heat and power is not all that gas is good for. We are to add ventilation to its list of utilities, says the "Progressive Age." Thus, instead of medical men talking about toxic properties and the safeguards that should surround its use in order not to endanger the general health of consumers, we are to hear how it can be used for hygienic purposes. Already cooking with gas has added largely to health and comfort, and Welsbach burners have reduced the vitiation of air for breathing. One of the most interesting and novel devices we have heard of in this connection is a small hood placed above the stationary gas bracket of a bathroom, connected by a pipe to the ceiling, where it enters a larger pipe reaching to the roof. Between the two pipes and level with the ceiling is an annular perforated ring through which the draft draws air from the room. Thus whenever this jet is lighted it ventilates the room while burning without extra trouble or expense. A little consideration of this scheme will make its advantages apparent.

In ventilating hoods for gas ranges the draft should be just strong enough to remove odors, for when the burner flame is under the influence of draft some gas escapes which is not perfectly consumed, and thus a certain proportion of gas is wasted. This is especially true with ovens. At the same time the hot air is drawn away before it has done its work. With well-purified gas the consumed gases are not unwholesome, serving simply to dilute the air breathed. The necessity for ventilation lies in the solid matter kept suspended either by moisture or otherwise. This must be removed, no matter what the system of heating and lighting may be, and therein exists the principal cause why ventilation is necessary. The quantity of matter which is thus carried by the air is much greater than is usually conceived of. One has only to examine the flue leading from the hood of a gas range, and which has been in use for some time, to note the deposit of unsightly and malodorous material which otherwise would have been scattered through the room to be breathed and deposited upon its walls. There may be cases where people consider themselves too poor to heat the fresh air necessary to good ventilation, but they would not be heavy gas consumers at any rate. Health demands ventilation to remove suspended organic matter, and the demand is seconded by cleanliness.

We have several times had occasion to say something upon this subject, but again we want to point out a field which it will pay to cultivate—gas ventilation. It requires very little gas indeed to move a relatively large quantity of air. If our gas appliance people take up the matter in an energetic spirit, calling upon the architects and Boards of Health to assist in the application of their schemes, there does not seem much reason why school-rooms, assembly halls, offices, smoking-rooms, dining-rooms and restaurants and many other places should not use gas to ventilate them economically and successfully. The subject came up for discussion while speaking with one of our most enterprising makers of gas stoves, and the facts brought out were of such a character as to make the proposition attractive from a business standpoint as well as the broader ground of general good.—The Metal Worker.

Concrete Floors.

"Rules for Concrete Floor Construction" were recently given by Mr. Frank Caws, in a paper in the "Journal" of the Royal Institute of British Architects. In this paper he made a number of statements regarding such floors which do not agree with experience on this side of the Atlantic. Nevertheless, as he has been building concrete flooring for 32 years, the experience on which the following rules are based has surely been long enough to lend much weight to the recommendations. "1. To take pains to obtain old cement. 2. To use good broken-brick aggregate, and not sand, in the proportion of four of brick to one of cement for the body of the slab, and fine crushed granite without sand for the surface coating, having about three of granite to one of cement. (I may say I have found that when the surface coat is gauged two of granite to one of cement, it sets too soon, while the continued expansion of the body beneath is still going on, and this causes minute cracks, tending to deface and spoil the surface.) 3. To adopt, as precautionary provision, sheep-wire netting as the base, and steel angle or tee bars weighing not more than 1½ pounds per lineal foot, spaced about 3 feet apart on the netting. 4. To consider a slab 10 feet square by 4 inches thick as capable of sustaining a load of 9 hundred-weight per foot, including its own weight, and to reckon that every slab will bear per square foot more or less than 9 hundred-weight directly in proportion to the square of its thickness, and inversely in proportion to the cube of its span. When the slab is rectangular the minimum span has to be considered the span. 5. To avoid casting slabs in frosty weather. 6. To insist upon organizing the gangs of workmen so as to cast as large an area of slabs as possible in one heat, and never to allow a slab to be left overnight with its area only partially cast. 7. To insist upon strong centering, and to keep it all standing not less than five weeks after the last slab of the series of one flat is cast, and absolutely to forbid and prevent the sudden and careless removal of the centering."—Enginering Record.

The Power of a Pound of Coal

Let us take a pound of what we will call average coal, containing, say, 10,000 heat units. This would be somewhat smaller in size than a man's fist. A pound of this coal, if expended in mechanical work, would give us 236 horse-power. Imagine at the time of the Pharaohs two long lines of men, extending over half a mile, all pulling steadily, at the command of the taskmaster, at a great rope to raise some huge obelisk, and as you see them sweating, tugging and straining, think again of this small lump of coal in which nature has placed an equal amount of power. In some countries men who have been specially trained as porters, to carry heavy loads on their backs, will, as a full day's work, carry a total of from 350 to 600 pounds a distance of one mile. And yet each has expended but one-third of the power stored up in this pound of coal.

An exceptionally strong man has been known to do one-half horse-power of work as his mightiest effort; but in two and a-half minutes, work at this rate exhausts his muscular force. Let us suppose 100 such men putting forth such extreme effort at rope, or crank, or crow-bar; as they fall back, red-faced and puffing, to catch their breaths, we might imagine this little black lump saying to them: "I can do as much as your whole company, and then can stand it for fully two minutes longer before I am exhausted!"

Let us now turn to another portion of the human race. From the earliest times spinning has been a much-prized accomplishment of the fair sex. We need look back only to our own grandmothers. We can picture them, from their own stories, told us when we were children, as rosy-cheeked damsels sitting around the open fireplace and spinning from early candlelight till bedtime, let us say possibly two hours. Let us then consider for a moment the thousands of spindles rattling and whirling in a modern cotton factory, impelled by the power locked up in coal. One pound of this coal carries the potential energy to do the work of three thousand such spinsters.

In sawing wood, a man may work at the rate of about 60 strokes a minute and consider himself a "top-sawyer," and his saw blade may have progressed 5 feet a minute; but a circular saw, driven by machinery, may be put through 70 times that distance and saw 70 times as much wood. And yet this one little pound of coal contains power enough for 180 such saws.—E. D. Meier, in Cassier's Magazine.

The Art of Veneering.

The art of veneering is very ancient. It was known centuries ago to the Romans, and possibly to the Egyptians, to whom it naturally would be suggested by the plating of wood with gold and silver, in which they were experts. Obviously the first intent of veneering is to deceive—to represent as solid what is only surface; but it enables the purchaser to procure what he desires in furniture, panels, castings and other woodwork at a far less price than the same work from the solid material would cost; and the art has the intrinsic advantages of strengthening by means of the veneer the wood basis, so as to materially assist in preventing it from warping or splitting and of permitting the artisan to make perfect matches in parallel panels or in one design in a single part of his work, by using two faces in the same cut, thus producing exact duplicates, which would be impossible in the solid wood.

The veneers are sawn or cut by machinery from blocks or planks of wood. For straight-grained woods there are ingeniously constructed machines which will split the veneers of the required thickness, thus utilizing the whole of the wood and saving the waste made by sawing. But for the most valuable woods this sawdust need not be wasted, since it can be mixed with glue or bullock's blood and then forced by powerful pressure into moulds which will give beautiful imitations of wood carvings of solid texture. The greater part of the veneers are sawn by the machines, which must be of the nicest construction, for the veneers vary in thickness according to the material or the value of the particular woods, from eight to one hundred veneers to the inch in thickness of the plank or block. The veneers vary in width from a few inches to four or five feet. By still another machine veneers of considerable length as well as width are obtained. This machine is, in fact, a turning lathe, which cuts the veneer from the wood in a spiral, so that the strip comes off as it were from a roll, in a sheet of from ten to fifty feet in length. This is applied especially to bone and ivory, and sheets of ivory have been cut by this method from ten to forty feet in length, and from one to two and a-half feet in width. Perfect machinery enables the veneer mill to supply the cabinet-maker or other artisan with uniform veneers of the required thickness for the different classes of work.

The veneers are sent to the cabinet-maker rough on both faces, and the surface to be placed on the wood is further roughened to facilitate the gluing. The strips are selected and shaped to the part to be veneered; the woodwork ground is thinly coated with glue; the veneer, well-warmed to keep the glue liquid, is laid on; over the veneer is placed an exactly-fitting wooden cover, or "caul," also warmed, and caul and veneer are then tightly pressed down by wooden clamps secured by screws and bolts. Or the veneer may be placed, rubbed down by hand, and then pressed down by the "veneering hammer," worked by one or more men from the centre to the edges, so as to press out air and any excess of glue. In this process the glue is kept in a fluid state by hot size on the surface of the veneer. Such spots or places as do not adhere closely are "gone over" with a hot iron. When contact is perfect, and the work is thoroughly dry, the veneering is finished, as in other cabinet work, by planing, scraping, polishing, oiling, or varnishing with colorless varnish. The finished work acquires a darker and so older appearance by exposure to light, and the same effect may be produced artificially by the use of lime water.

The application of this art is almost unlimited. It is seen in furniture of the commonest kind and of the most costly; in the ivory keys of the piano; in panelings, and cabinet and carpenter work of various kinds, and in the elaborate interior fittings of halls, offices, and libraries. It is exhibited in its most perfect form in the mosaic or inlaid work known as "buhl work," in which rare woods, ivory, tortoise-shell and other materials are inlaid or veneered in the fanciful and beautiful forms. A recent American invention utilizes veneering in what is known as "pressed work," which consists in gluing together several veneers of a cheaper wood, say black walnut, facing them with more expensive wood, like rosewood, and then heating the whole and shaping in moulds to furnish chair backs and arms or other curved work. By this process a stronger piece, less liable to crack or warp, is secured than can be obtained from a solid plank. By similar processes, heating and putting in moulds, an infinity of shapes may be obtained from veneers, which are thus made to present forms and figures in relief, as if of carved wood, the concavities being filled with composition to make the work solid. Veneers are sometimes cut and stamped for binding books; and large and thin sheets of variegated woods have lately been introduced in the United States to take the place of paper hangings. Properly put on the wall, a room presents the appearance of having been finished in solid wood from which the veneers are cut. Of late years the art of veneering has become a very important one, and is now an indispensable one.—The Architects' and Builders' Magazine.

Concrete Masonry Construction at Low Temperatures.

In two recent issues of "The Engineering Record," editorial comment was made on some features of concrete masonry construction, but the consideration of the effect of low temperatures on such masonry was reserved for the present occasion. No discussion of this type of masonry can be considered other than incomplete at this time without recognizing the conditions, both as to production of concrete and its ultimate resistance, which may arise at low temperatures, since it is well known that the setting of hydraulic cement is more or less retarded at low temperatures, and probably entirely suspended if freezing sets in before crystallization takes place.

It has been maintained by some engineers that hydraulic cement mortar which is frozen before the setting is complete, is much injured if not valueless. In this connection, however, it must be recognized that the consequences of freezing are not the same with all cements, just as the consequences of other methods of treatment will produce quite different results with different cements.

It is probably true as a general rule that natural cement mortar or concrete is practically ruined when frozen before the operation of setting has proceeded to any considerable extent. At any rate it may have been many times demonstrated by actual experience that such results take place with many grades of natural cement, which under more favorable circumstances give excellent results.

On the other hand, it is a matter of experience that Portland cement mortar or concrete may frequently be frozen for considerable periods of time before the operation of setting is complete without material injury or possibly any injury at all. Several cases from actual practice might be cited. For example, in one instance a considerable mass of ashlar masonry, made up with Portland cement and in a very trying position in the abutment of an arch, was frozen in a fresh condition, and remained frozen for a considerable number of weeks, in fact, during almost the entire cold period of winter. As the milder weather of the spring approached the masonry naturally thawed out, and the mortar was found to be somewhat soft, although it immediately began to harden, and apparently completed the process of setting. The material was tested and the results were so satisfactory that the masonry was allowed to stand. It has proved to be in every way satisfactory, so far as can be observed. Other and similar experiences appear to demonstrate that good Portland cement in freshly-made mortar or concrete will stand temperatures considerably below freezing without apparent ultimate deterioration, and perhaps without any.

"The Engineering Record" does not wish to be understood as advocating the practice of permitting Portland cement mortar and concrete to be frozen before it is set. Quantitative tests have certainly not yet demonstrated the propriety of that position, but experience has shown, in some instances at least, that such material may be frozen without prejudicial results of moment, provided the freezing does not take place too early in the life of the freshly-made cement mortar. As a rule it is doubtless the safe and only prudent course to produce and lay the concrete masonry under such circumstances that freezing will not take place until the cement is set.

It would probably be impossible, on the other hand, to show that low temperature under any circumstances of good concrete practice injures the material after the cement has set. This is quite a different phase of the matter from the freezing of freshly-made concrete. Probably no engineer would contend that low temperature in itself is injurious to hardened concrete. If any difficulty can arise it would be due to the freezing of moisture in the small interstices or pores of the concrete mass. Such freezing does not injure well-made brick of good quality, and there is no sufficient reason to believe that it would injure first-class concrete after it has once set. Obviously, however, prudent procedure would demand that the exterior surface of the concrete mass should be made as solid as possible with the interstices reduced to a minimum. It is perfectly feasible to make the exterior surface of concrete practically continuous, and so dense as to reduce the interstices or pores far below injurious dimensions, especially in this day of fine grinding of cement. With these precautions there is no reason to doubt that first-class concrete masonry will stand the low temperature of any northern climate in which it may be used as well as first-class ashlar.

In these observations it is to be understood that in speaking of Portland cement those grades in which a suitable chemical composition has been established, and which are ground fine, are considered. At the present time there are a considerable number of both domestic and foreign brands which meet these qualifications even when expressed under exacting requirements.—The Engineering Record.

An Apartment Hotel.

We illustrate in this issue, the exterior design of an Apartment Hotel for Bachelors, that is to be erected at Nos. 155, 157 and 159 West 36th st, on the north side, between Broadway and 7th av.

This building is designed in the style of architecture of Louis XVI., and this same style has been carried out in the entire interior work, and will be followed in the decorations.

The base of the exterior, including the entire front entrance and porch, will be of white granite. The remaining cut stone work of the first three stories, as well as remaining parts of building will be of white marble. The face brick of front will be of light red pressed brick, laid in white mortar. The cornice and roof work of front will be of copper.

The plans show many marked improvements on the "so-called" modern apartment house. The main entrance is direct into a well-lighted hall, where is located the office for clerk of hotel, news-stand, telephone booths, etc. To the left of the entrance is a large reception room, with fire-place and special screen and window treatment. On the opposite side of the hall are located two offices, which will be used as doctors' offices.

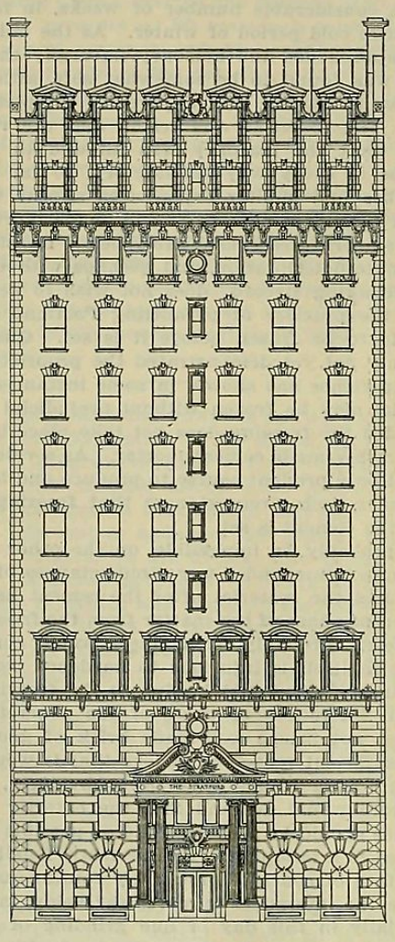
Off this same hall is located two toilet rooms, also a private office for the manager.

At the end of this hall, directly in front of the main entrance, is a door leading to the cafe or restaurant, back of which is the serving-room, with the kitchen located in the basement.

On this same floor are rooms for manager and clerks.

Two passenger elevators of the most approved make are located near the main entrance door.

Nine of the upper floors are divided into suites of two rooms and a bath, while the upper two floors are divided into suites of one room and a bath. Also on each floor is a large closet, well



lighted, for the storage of linen and cleaning utensils, slop sink, etc.

The principal feature of the upper floor plan is the fact that every hall and stairway is well lighted by outside light, no small courts or light shafts being required. The halls are liberal in width for the moving of furniture, also at the end of the main corridor is an outside door leading to the fire escapes.

One of the noticeable features is that in the suites of two rooms and bath, that each room and a bath opens from a private hall, this avoiding the usual plan of going through rooms. Also every room has a large closet, special pains being taken that every closet will hold a good-sized trunk.

The bath rooms are equipped with the latest and most approved fixtures, and each room will have marble floor and tile wainscoting.

In each bath room, in the side of the wall, is a small refrigerator or ice box which is operated by the cold storage refrigerating plant in the basement. Each box is about 18 inches x 30 inches, and 12 inches deep, divided into three compartments; also in each box is a reservoir for ice water. The door enclosing entire box has a panel filled with a mirror.

In the basement, the arrangement of boilers, machinery, etc., has been given unusual attention in the matters of convenience of operation and economy of space; also, when it is completed, that the system of piping, etc., will be equal to an exhibition plant. The coal pockets have not only a capacity for daily use, but an opportunity for a special storage of coal over 100 tons of coke. The boilers, two in number, are located in the front part of the building convenient to coal pocket; also a special freight elevator is provided to remove the ashes. The machinery room contains the necessary pumps for the elevators, the engine for the refrigerating plant, which is operated all through the building, also engine and dynamos for the electric lighting system. Also a filter for filtering all the water used in the building.

In a special area, at one side of the building in the rear, is located the large tanks necessary in connection with the hydraulic elevators, also brine tanks for refrigerating plant, also is located a system of storage batteries which will be used when the dynamos are not in operation.

Each room will be connected with a main office with a private telephone system, which can also be used for long distance service. Each floor has a special mail chute, also a complete fire protecting system.

In the design of the interior finish as little woodwork as possible, consistent with good construction, has been used. All halls, corridors, stairs, etc., finished with marble, and marble floors, and the woodwork of red birch-finished mahogany.

The work will be erected under the supervision of the architect, F. R. Comstock, No. 124 West 45th st, New York City.

Questions and Answers.

We must remind our correspondents that we cannot answer anonymous communications. Readers must also remember that communications to us cannot invariably be answered the week they are received.

NATURALIZATION—DISCRETION OF U. S. COMMISSIONER.

To the Editor of THE RECORD AND GUIDE:

Can you please give me the following information? On what authority can the U. S. Commissioner of the United States Court refuse to accept a witness for a person who desires to become a naturalized citizen, if the witness answers all the questions put to him, and swears to the same as being true? The case in question is that the above witness was a witness for three different people at various times, and he was given to understand that he would not be accepted any more. The witness for the parties has sworn to the truth in each case. What I wish to know is, on what ground can the Commissioner refuse to accept a witness?

Answer.—If the witness is qualified, and swears to the truth, I know of no reason and of no provision of law that would prohibit his being a witness for a hundred persons as well as one. The only reason which I can think of for the Commissioner's alleged action is that he had a suspicion that the witness was swearing falsely. Still, I do not think that the Commissioner has a right in law to refuse to take the affidavit of a witness under such circumstances.—Law Editor.

DISPUTE BETWEEN FORMER PARTNERS.

To the Editor of THE RECORD AND GUIDE:

A and B were partners in the real estate business. B purchased the interest of A. At the time a certain exchange of properties was pending (the names of the principals were stated, but properties were not designated), A agreeing to divide commission with B, if the transaction was closed by him at a subsequent date. The deal was finally consummated, but one of the principals in the matter substituted another property for the one which was originally under consideration at the time B purchased the interest of A. A claims that the original trade had been declared off, and that the second property was offered some time afterwards. This second property, which was finally accepted, had been suggested at the time the original deal was pending, before the dissolution of the firm. Is B entitled to his share of the commission?

Answer.—I think he is.—Law Editor.

COMMISSIONS FOR RENTING AND COLLECTING.

To the Editor of THE RECORD AND GUIDE:

A authorizes B to take charge of his apartment house, in the way of securing tenants and collecting the rents therefrom. B proceeds to secure tenants taken under lease for a term of one year, and in the meantime collecting rents from such tenants. A decides to take away the management from B. In such an event is B entitled to the commissions for the unexpired term of such lease?

Answer.—B is undoubtedly entitled to his commissions for renting, but in the absence of an agreement that he shall have the collecting for a definite time, I do not think he is entitled to commissions for collecting after the management is taken away from him.—Law Editor.

INTESTACY.

To the Editor of THE RECORD AND GUIDE:

A woman dies intestate, leaving a husband and one (boy) child. She leaves some money in the bank, partly her own before marriage, partly saved up from money received from her husband for household expenses, furniture given to her by her father at the time of her marriage, some furniture bought by the husband. Please to state how this is divided up between husband and child, or how large a share each is entitled to?

Answer.—Of whatever personal property the woman owned at the time of her death the husband gets one-third and the child the other two-thirds.—Law Editor.

LANDLORD AND TENANT EVICTION.

To the Editor of THE RECORD AND GUIDE:

During May, 1899, I leased the second and third floors of 2082-84 Lexington av, New York City, for a term of three years. On December 1, 1899, I decided to move to 101-105 East 125th st. I received permission from the agent of 2082-84 Lexington av to sublet both floors, which I did. The agent now desires to have my signs taken from the front of the building, claiming that I vacated the same, and that he wants to paint the building. I claim that inasmuch as I am paying rent for the floors I am entitled to the signs remaining on the front of the building. Should the agent decide to remove the signs himself from the building do you consider this as abrogating the lease?

Answer.—I do not consider it an eviction such as would absolve you from paying rent, but you would have a cause of action against him for damages.—Law Editor.

Real Estate Market.

The following are the comparative tables of Manhattan and the Bronx of the Conveyances, Mortgages and Projected Buildings for the corresponding weeks of 1899 and 1900:

CONVEYANCES.

1900. July 20 to 26, inc.		1899. July 20 to 26, inc.	
Total No. for Manhattan	138	Total No.	137
Amount involved.	$1,131,075	Amount	
Number nominal.	78	Number	
Total No., Manhattan, Jan. 1 to date...			
Total Amt., Manhattan, Jan. 1 to date..		$69,	
1900. July 20 to 26, inc.		1899. July 20 to 26, inc.	
Total No. for The Bronx	86	Total No.	
Amount involved.	$186,428	Amount	
Number nominal	45	Number	
Total No., The Bronx, Jan. 1 to date...			1
Total Amt., The Bronx, Jan. 1 to date..		$6,8	
Total No., Manhattan and The Bronx, Jan. 1 to date.....			1
Total Amt., Manhattan and The Bronx, Jan. 1 to date.....		**$75,83**	

MORTGAGES.

1900.	July 20 to 26, inc. Manhattan.	Bron
Total number.....	185	
Amount involved.....	*$6,225,743	$372,
Number over 5%.....	71	
Amount involved.....	$674,243	$119,
Number at 5%.....	60	
Amount involved.....	$917,300	$231,
Number at less than 5%..	54	
Amount involved.....	*$4,634,200	$21,
No. above to Banks, Trust and Insurance Co.'s.....	41	
Amount involved.....	*$4,658,800	$7
Total No., Manhattan, Jan. 1 to date...		
Total Amt., Manhattan, Jan. 1 to date..		$168
Total No., The Bronx, Jan. 1 to date...		
Total Amt., The Bronx, Jan. 1 to date..		$1
Total No., Manhattan and The Bronx, Jan. 1 to date.....		
Total Amt , Manhattan and The Bronx. Jan. 1 to date.....		**$184**

*Includes a mortgage given for $3,500,000 ance Society.

PROJECTED BUIL

Total No New Buildings:	July 20
Manhattan.....	
The Bronx.....	
Grand Total.....	
Total Amount:	
Manhattan.....	
The Bronx.....	
Grand Total.....	
Total Amount Alterations:	
Manhattan.....	
The Bronx.....	
Grand Total.....	
Total No. New Buildings:	
Manhattan Jan. 1 to date.....	
The Bronx, Jan. 1 to date.....	
Manhattan-Bronx,Jan. 1 to date...	
Total Amount New Buildings:	
Manhattan Jan. 1 to date.....	
The Bronx, Jan. 1 to date.....	
Manhattan-Bronx,Jan. 1 to date	
Total Amount Alterations:	
Manhattan-Bronx,Jan. 1 to dat	

Gossip of the Week.

SOUTH OF 59TH STREET.

45th st, No. 57 West, 3-sty and basement dwelling, 18.9x100; seller, Rosalie Rafalsky; buyer, L. C. Mosher, who will build a 9½-sty apartment hotel, which will be connected with the Schuyler, which it adjoins. The new building has been leased to the owner of the Schuyler for twenty-one years, at $8,000 a year net. The Schuyler is a 9-sty building, which was built three years ago and completed in October, 1898, since which time it has been fully tenanted. It was sold this year to Arthur W. Eager, who has also leased No. 63, on which a similar building is now being erected. When the two additions are completed the building will have a frontage of 75 feet, the Schuyler being 9 stories high and the two additions 9½. The upper half-story will in both instances set back, and will not be seen from the street; it will be used for servants' quarters, and disposes of the worry caused in some quarters by the erection of a so-called toothpick building.

Rutgers pl, Nos. 10 to 22. Weil & Mayer have sold one of a row of seven new 6-sty tenements erected by them last year. They acquired this property, together with Nos. 294 to 308 Cherry st, in a trade for Nos. 246 to 252 Mott st.

Stone st, No. 24, extending to No. 59 Pearl st, and measures 17.11 in Stone st, and 23.5 in Pearl st; seller, Elizabeth J. Harvie, who took title this week; buyer, John E. Thrall, who recently sold his property at Nos. 6 to 10 Bridge st, running through to Pearl st. Mr. Thrall in January purchased Nos. 1 and 3 Front st, on which he will build a 7-sty warehouse. No. 22, adjoining and fronting 22.11 on Stone st, and 22 feet on Pearl st, with a depth of 112.4, sold to the Metropolitan Telephone and Telegraph Co. in 1890 for $105,000.

Delancey st, Nos. 283 and 285, southwest corner of Cannon st, 36x75; and Cannon st, Nos. 39 and 41, adjoining, 50x100, tenements; sellers, Lowenfeld & Prager, who take in exchange the three tenements, Nos. 411 to 415 Cherry st, Nos. 411 and 413 being 25x94 each, and No. 415, 25x100; buyer, Bernard Golden. The Delancey st parcel will be taken for the approach to the New East River Bridge.

Perry st, No. 8, 3-sty dwelling, 22x95; seller, Henry Brown; buyer, a Mr. McDermott; broker, J. W. Jones.

Perry st, No. 64, 3-sty dwelling, 20x94; seller, a Mr. Mohlmann; buyer, H. E. Schwittes; broker, J. W. Jones.

23d st, No. 324 West, 4-sty dwelling, on lot 20x98.9; seller, ...am Kramer estate; broker, John Peters.

...h st, No. 56 East, new 9-sty store and loft building, lot 25x ...; seller, Owen Costello.

...d st, No. 32 West, 5-sty browntone dwelling, 25x100.5; seller, ...lliam Thorne; buyer, James Simpson; broker, John N. Gold-

NORTH OF 59TH STREET.

21st st, No. 310 East, single flat, on lot 20x100; seller, Rose J. ...ce; broker, E. J. Welling, Jr.; price, $11,000.

42d st, Nos. 215 and 217 West, two 5-sty flats, on plot 50x ...11; sellers, Burns Bros.; brokers, Duff & Brown.

127th st, No. 111 West, 3-sty and basement brownstone dwell-...g, 16.8x50x99.11; buyer, William Valet; brokers, John M. Gib-...on & Co. The same brokers have also sold to W. E. Baker a 3-...ty dwelling at Whitestone, Queens Borough. It is probably a ...ade for the above.

114th st, No. 340 East, 4-sty brick tenement, 25x100.10; seller, ...einrick C. L. Sander; brokers, G. Tuoti & Co.; price, about ...15,000.

115th st, No. 530 East, 5-sty brick tenement, 25x85.4x irregular; ...eller, a Mrs. Stevens; brokers, G. Tuoti & Co.; price, about ...15,000.

113th st, south side, 345 feet west of 5th av, 100x100, vacant; ...buyer, Bernard Freund; brokers, Kahn & Bauman.

84th st, No. 202 West, 5-sty double flat, 26x102; seller, Jacob Chaimowitz, who takes in exchange the 6-sty tenement at the southwest corner of Madison and Scammel st, size 25x90.6; buyer, Dora Scheer.

116th st, Nos. 227 and 229 West, 6-sty double flat with stores, on lot 40x100; seller, William S. Long; buyer, Mrs. Sarah Brown; brokers, Brettell & Lansing.

111th st, Nos. 31 to 35 West, three 5-sty double flats, on plot 91x100; sellers, Burstein & Reiss.

87th st, No. 354 East, 4-sty flat, 27x100.8; seller, Carl Lafrenz; buyer, John Aichele; broker, Nathan H. Weil.

104th st, No. 59 West, 5-sty dwelling, 25x100; seller, Rhinelander estate; buyer, Mrs. Mary S. J. Lemmon; brokers, Charles S. Kohler & Bro.

Manhattan av, No. 107, 3-sty dwelling, 18x50; buyer, a Mrs. Saxe; brokers, Charles S. Kohler & Bro.

THE BRONX.

Washington av, near 180th st; Diller Lutz & Co. have sold for John Massemino four houses at this location.

155th st, No. 613 East, 4-sty double flat, on lot 25x100; seller, Ralph Mazziotta; brokers, Neubeck & Busher.

143d st, No. 727 East, 2-sty two-family dwelling, on lot 20x100; seller, Christian Muhl; brokers Neubeck & Busher.

Trinity av, No. 720, 3-sty three-family flat, 25x87; seller, William Hofmeister; brokers, Neubeck & Busher.

Crotona Park East, 100 feet west of Southern Boulevard, 25x100, vacant; seller, A. J. Besson; buyer, Arthur V. O'Connor; price, $1,100.

Boston av, No. 1201, 52 ft. south of 168th st, 5-sty brick flat, 40x90; seller and builder, Joseph J. White. This is one of two houses now being finished by the seller, the corner being 52x95.

135th st, No. 854 East, 4-sty brick flat, lot 25x100; seller, a Mrs. Stein, who takes in exchange, at $6,000, property at White Plains; buyer, a Mrs. Peter; broker, Henry M. Ribeth; price, $14,000.

FOR SALE.—Fifty-seven bound volumes of "Record and Guide," 1868 to 1900. Address JERE. PANGBURN, JR., 45 Broadway, or 608 Greenwich street.

Brooklyn.

The following are the comparative tables for the Brooklyn Conveyances, Mortgages and Projected Buildings for the corresponding weeks of 1899 and 1900:

CONVEYANCES.

	1900. July 20 to 26, inc.	1899. July 21 to 27, inc.
Total number	293	269
Amount involved	$474,543	$440,434
Number nominal	169	160
Total number of Conveyances, Jan. 1 to date	**9,608**	**9,415**
Total amount of Conveyances, Jan. 1 to date	**$16,853,900**	**$22,841,762**

MORTGAGES.

Total number	233	234
Amount involved	$912,421	$888,404
Number over 5%	82	105
Amount involved	$376,996	$270,832
Number at 5% or less	141	129
Amount involved	$535,425	$617,572
Total number of Mortgages, Jan. 1 to date	**7,532**	**7,795**
Total amount of Mortgages, Jan. 1 to date	**$28,023,309**	**$106,560,289**

PROJECTED BUILDINGS.

No. of New Buildings	63	92
Estimated cost	$299,350	$440,225
Total number of New Buildings, Jan. 1 to date	**1,645**	**2,636**
Total amount of New Build- Jan. 1 to date	**$8,920,489**	**$14,677,85**
Total amount of Alterations, Jan. 1 to date	**$1,349,172**	**$1,844,**

Leonard Moody Company reports the following sales: A. No. 172, 3-sty and extension brick house, 25x40x100; seller, K. Wreaks; buyer, Matthew Parker; price, $8,000. Adar No. 267, 3-sty frame house, 23x40x100; sellers, Pott & Part. buyer, C Mantel; price, $4,500. For J. B. Cole to Antonio Zu the plot on south side of Pacific st, between Saratoga and ard avs, for $2,000. For C. Schellens to Morris Krim, Smi No. 44, 4-sty brick building, 19x50x100, for $9,500. Waverl No. 429, 2-sty frame stable, lot 25x100; seller, A. B. Car buyer, Mary Sullivan; price, $2,500.

REAL ESTATE NOTES.

C. M. Eadie, real estate broker, of No. 7 East 135th st, opened a branch office at No. 3814 3d av, near Wendover av.

Charles S. Kohler & Bro. were the brokers in the sale of lots on the north side of 102d st, 100 feet west of Columbus purchased by the city for an engine-house.

We hear that the store floor in Sherry's old headquarters, the southwest corner of 5th av and 37th st, has been leased t large concern, who are now located down-town.

The property on 112th st, reported sold in our last issue, v Nos. 317 and 319 East 112th st, and not Nos. 321 and 323; th were 6-sty tenements. G. Tuoti & Co. were the brokers.

Be sure and pay your Croton water taxes before August 1 Five per cent. is added on all bills not paid by that date. Pa ments must be made at the Department of Water Supply, at N 13 Park row, where bills are also obtained.

J. T. Stockdale & Co. are new workers in realty circles her with experience and energy, coupled with a determination t score a success. Their specialty is renting and collecting, an they invite owners who have houses and apartments vacant t communicate with them or call at their well-located offices a No. 681 Amsterdam av, corner of 93d st, where details of thei methods—that secure results—will be explained. Messrs. Stockdale & Co.'s telephone call is No. 1963 Riverside. The firm also negotiate sales and exchanges of property, and the placing of mortgage loans and insurance.

Building News.

MERCANTILE.

45th st, No. 57 West. L. C. Mosher, who has just purchased this property, will at once begin the erection of a 9½-sty apartment hotel, which he has leased to the owner of the Schuyler, which it adjoins. It will be connected with the latter and become a constituent part of that building, as will also No. 63, on which a similar building is being erected; when both operations are completed the building will have a frontage of 75 feet. The basement of both new buildings will be used for the lighting and heating plant for the entire building; the upper half-story will set back, and will not be seen from the street; it will be used for servants' quarters. Harry C. Pelton, No. 1133 Broadway, is the architect. The building will cost about $190,000, and the construction and style of architecture will conform to that of the Schuyler, which was erected in 1897 by the Imperial Realty Co.

Liberty st, Nos. 114 to 118, through to Nos. 119 and 121 Cedar st. John T. Williams will shortly begin the erection of a 12-sty fireproof loft building on this plot. It fronts 70 feet and 2 inches on Liberty st and 45 feet on Cedar st; John T. Williams, Jr., No. 27 William st, is drawing the plans.

Little West 12th st, north side, and 13th st, south side, east of 10th av, brick and stone factory, to occupy about 10 lots in 12th st and 4 in 13th st; number of stories not decided; John Jacob Astor, 23 West 23d st, owner; P. F. Collier, foot West 13th st, lessee; A. M. Napier, 25 West 26th st, architect.

17th st, No. 5 East, through to 18th st, No. 6 East; George A. Heisler, No. 217 West 125th st, who has just purchased this property, will erect an 8-sty skeleton construction store and loft building on both lots. The 17th st lot is 37.6 front, and the 18th st one 24.6 front; Edwin Wilbur, No. 217 West 125th st, architect.

DWELLINGS.

5th av, east side, north of 72d st, 5-sty brick and stone dwelling, 25x108; John W. Sterling, 44 Wall st, owner; Bruce Price, 1133 Broadway, architect.

STIMATES RECEIVABLE.

partment, Washington, D. C., until August construction (except heating, electric wir- the U. S. Post-Office Building at Elgin, gust 21, at 2 p. m., for the construction (ex- ls and electric conduits and wiring) of the t. Cloud, Minn.; drawings and specifications stmaster at either place, or of James Knox rchitect.

ONTRACTS AWARDED.

orm repairs to the Administration Building was awarded to Albert Winternitzen.

ded by the Board of Education on Monday hools as follows: For erecting new school 117th sts, between 5th and Lenox avs, to 97,500; the following also bid: Luke A. rennan, $298,330; W. & T. Lamb (irregu- , $317,900; P. J. Walsh, $304,000; Thomas Wechsler, $318,750; Thos. Cockerill & ving lots adjoining No. 10, to Charles O. improving sanitary condition of No. 1, ; for repairs to No. 62, to J. P. Hansen, No. 56, Brooklyn, to James Harley &

BROOKLYN.

5 feet west of Throop av, 3-sty brick 000; Simon Bauer, 76 Gerry st, owner , 473 Hart st, architect.

OLITAN DISTRICT.

o church, to consist of new organ loft; ed Church, owner; Tuthill & Higgins,

ation to 2½-sty frame dwelling; cost, B. Simonson, architect.

NEW YORK ARCHITECTS.

W. Leavitt, Jr., has plans on the improvements to the Bradford L.

tion to 2-sty frame stable; Eliza Pa., owner; Wm. S. Post, 33 East

o. 18, alteration to 2½-sty frame owner; Geo. B. Melendy, 99 Nas-

, near Arlington av, alteration to 1,000; Wm. B. Kerr, 860 Broad- & See, 31 East 17th st, archi- stone and frame dwelling, 38x r; Richard K. Mosley, Produce

basement frame church, 35x39; Church, owner; Turner & Kil- ray, architects.

oles st, 3-sty brick, mill con- 65x68; Central Lard Co., 522