

THE difference between the estimates for the year of the appropriation required by the Boston Public Library and the amount voted for this institution by the City Council, is such that after expenses and salaries are paid nothing will be left for the purchase of books. This suggests the question as to how much in our public libraries is spent for the mere amusement of the public in the purchase of novels. We think that in the interest of the city, for the education of its inhabitants, for the study of those who earn their living within the city, a very small proportion of the sums expended on books should go to the purchase of "light literature." Professional associations often have their own libraries, but not always, and it is very seldom that the mechanic is able to obtain at his own cost the books he requires for the necessary theoretical knowledge. Such people's needs ought to be the first consideration, and the purchase of novels a very secondary one.

THE rights of "adjoining owners" to support from abutting buildings or even from the soil of the adjoining vacant lot is a matter of more or less consequence to everyone connected with building. It is most important for the owner of the buildings to be torn down, or of the vacant lot in which it is intended to excavate for foundations, to ascertain for his own satisfaction what rights, if any, the adjoining owner possesses, and in all cases where such rights exist he must give ample notice to his neighbor so as to allow of his shoring up his premises if necessary, but it devolves upon the adjoining owner to prove his claim to support. In the absence of any right of support, if on receiving notice he fails to protect his own building from injury, and reasonable time is afforded him for doing so, he cannot claim damages for injury if they occur. In the same way, should the owner of the vacant lot desire to excavate below the foundation of his neighbor's wall, the neighbor must see to his own protection. If the wall is a party wall, the adjoining owner undoubtedly possesses right to support as far as the half wall and the soil supporting it is concerned. The position of the architect or the builder depends very much upon the nature of their employment; to be free from consequences it is often less costly to them to give the notices themselves, or to have an understanding with their employer that he takes all responsibility himself, and that they are acting only and entirely on his instructions. Where they are acting as agents of the employer, the employer is of course responsible for their failure to notify the adjoining owner, but it might be very difficult for them to free themselves if he took action against them to recover the damages paid by him.

THE case of the Dominion Government against Mr. St. Louis, the contractor for the labor supplied in connection with the building of the Lachine bridges, has dragged on its course through different trials in such a way as to mystify the ordinary observer. The case will form a precedent and carries many lessons with it. But the principal point is the further evidence adduced in reference to day labor as opposed to contracts, and it will now undoubtedly be generally admitted that the system of day labor leaves so much latitude for fraudulent transactions that it is hardly wise to resort to it, when it is at all possible to have the work done under contract. The Government was not aware of any negligence on the part of the contractors until the works were far advanced, but the moment it felt its ground sure, it took very decided action. The engineers were dismissed; \$60,000 claimed by Mr. St. Louis on account of the works was refused; suit was entered for the return of money said to be already overpaid, while Mr. St. Louis himself was prosecuted for false pretences. The Government was successful in withholding the \$60,000, but it failed in the criminal prosecution, and the further case for the return of the over-payments came abruptly to an end by the action of the grand jurors in bringing in "no bill." Sufficient evidence was adduced in the criminal trial to show that an enormously unnecessary force of men was employed, that pay was drawn for men who did not work at all, while many other men who were also paid in full were proved to have done very little for their money. A typical case was that of one witness who actually worked 30 hours and was paid \$6.00. In the pay lists, however, his name appeared as having done 320 hours' work, but as many carters had more than one rig and the drivers were careless about giving their correct names or

numbers, it was very difficult to trace payments, and hence the decision of the Magistrate that all the fault did not lie with Mr. St. Louis.

IT is not uninteresting to note the arrangements made for the safety of the public in the event of fire in the Albert Hall, London—the greatest concert hall in the world—and to compare them with more modern plans. It was stated in a paper on the construction of the Albert Hall, that was read before the Royal Institute of British Architects many years ago, by Major-General Scott, the engineer of the design, that the corridors that surround the hall, with the crush rooms and staircases, together afford sufficient space for all the people which the auditorium and orchestra will contain, to be in movement at once without jostling each other. The central seating capacity of the hall is given at 8,365, which includes the orchestra and the "picture gallery" that runs round the hall over the corridors and at the back of and above the "balcony." The sum of the widths of the external doors for these 8,365 persons is divided between twenty-five entrances, of which one is 16 ft. wide and all the others 4 ft. 6 in., being one foot to every 64 persons. The capacity of the "picture gallery" is put down at 2,000, but on "great nights" there have been as many as 3,000 persons up there, although only two rows of chairs are provided against the balustrade that overlooks the hall—those who cannot obtain a seat promenading, without being able to see down on to the stage. On such occasions there would be from 10,000 to 11,000 present in the hall, and then the calculations for the 8,365 are naturally found insufficient; and although every person could leave the hall and be accommodated in the corridors, the pace at which one went down the stairs was, roughly speaking, about one step in three minutes. Nowadays, doors for exit, even though there are twenty-five, only 4 ft. 6 in. wide, would be deemed a decided error, for in a panic the public usually follow the leaders like sheep, and all would make for one 4 ft. 6 in. doorway. There are sixteen staircases 6 ft. 6 in. wide, and two 4 ft. 6 in. wide, open to the same objections as the narrow doors. The calculation is one staircase for each 200 persons from the boxes and arena, and for the balcony and picture gallery one for each 500. The amphitheatre has one exit for every 250 persons, each 9 ft. wide.

CRUSHED GLASS AS BUILDERS' SAND.

COMMENTING upon the suggestion of a correspondent that crushed glass should answer as a satisfactory substitute for builders' sand, the London Builder says:—"The suggestion is not altogether novel. In the United States refuse from glass works is sometimes used both for mortar and cement, though we believe its employment is being restricted. In Germany and Switzerland various proposals have been put forward from time to time to employ glass refuse for building purposes, but they do not seem to have come to much for reasons that will presently be seen. There can be no question as to ground or crushed glass being suitable for mortar. Judging from the sample sent us, the small fragments are angulate, and from the mechanical point of view, they leave nothing to be desired. From the chemical standpoint also there is practically nothing detrimental in the material, though it cannot be quite as durable as pure quartz sand. The chemical composition of black bottle glass varies exceedingly within certain limits, but it may generally be regarded as being from 50 to 65 per cent. of silica, 20 to 25 of lime, 6 to 9 of potash or soda, and from 4 to 7 of iron—depending on the manufacturer and the class of bottle. Ordinary bottles would have about 54 per cent. of silica, 20 of lime, etc. In any case large proportions of lime, soda and potash are present, though the bulk of the glass is silica. From the state in which these ingredients exist in the glass, there is very little likelihood of their being able to materially influence the action of the mortar in any way. We cannot see therefore why glass sand should not be employed in the manner suggested; it would be purely a question of cost. The reason it has not been adopted to any extent abroad—and this is a point for our correspondent to note—is because with very little preparation it makes a good brick for use in chemical works, as the material is so little attacked by acids. Bricks thus produced have a specific gravity of only 1.5, and are very strong though somewhat brittle. A glass brick, in the shape of a flask, has been manufactured in Switzerland for some years, and slag bricks are well known."