MONTREAL.

(Correspondence of the CANADIAN ARCHITECT AND BUILDER.)

THE most exciting event of the past month has been the total demolition by fire of the Longue Point Lunatic Insane Asylum. The particulars of the fire and the building have already appeared in almost every paper of the Dominion, and therefore require no further descrip ion. It seems almost incredible that a building containing so many human lives, practically helpless and caged behind iron bars, should in this 19th century be so wholly devoid of fire protection. It strikes me that if any buildings should be fire-proof or provided with appliances for fire protection, surely an insane asylum or hospital ought to be placed in such a position as to be impossible to be damaged by fire. In the case of Longue Point Asylum somebody is certainly at fault, for this institution being practically endowed by the Government, they should have taken such steps as were necessary to be certain that the building in which they placed the weak minded people of the province was thoroughly protected against accidents by fire. It is to be hoped that this calamity will be a lesson to all connected with our public institutions to see that their buildings are properly protected; in fact the Government ought to spare no expense in having all public buildings, such as asylums, hospitals, schools, convents and hotels examined, and their owners compelled to have them properly protected.

CANADIAN SOCIETY OF CIVIL ENGINEERS.

The Canadian Society of Civil Engineers held an ordinary meeting on Thursday last at McGill College, where a paper was read on the generation of power and light by electricity by Mr. Lawson. There was a good attendance and an animated and interesting discussion will likely take place on the paper at the next meeting.

It was announced at the meeting that owing to the burning of the Toronto University and the absence of Colonel Gzowski, the Branch Society recommended that the summer convention be not held in Toronto this year. The probability is that there will be no summer convention take place this year.

FLOOD PROTECTION.

The commissioners appointed by the Government to examine and report upon the plans for flood protection and harbor improvements have so far done nothing. The explanation given is that Mr. Keefer is absent and Mr. Page is too busy with departmental work. The citizens are quite indignant at this treatment, and think that the members of the commission should either not have accepted the position or have immediately proceeded with their work. A deputation, including the Mayor and members of the Board of Trade have just interviewed the Government urging the appointment of a new commission; the Government have taken it into their consideration and a favorable answer is daily expected.

CONTRACTS.

Contracts for the new Victoria Hospital are not yet let. Rumor has it that the tenders are far in excess of the estimates, and that the plans will require remodeling and new tenders taken before the work proceeds.

MOUNT ROYAL PARK INCLINE RAILWAY.

The Directors of this railway have at last secured permission from the City Council to erect their station on Fletchers' field near the Golf Club House, and are pushing on the construction with all possible despatch. They hope to have cars running by the 24th inst. It is a great pity while they are at it that they did not ask permission from the City Council to run their cars to the corner of Craig and Bleury St. It would be a great convenience to the public, and without additional charge would pay the company handsomely for their outlay.

THE CARPENTERS' DEMANDS.

I hear that the carpenters propose to hold a meeting to-night to demand the eight hours movement from their employers. It is stated that if not acceded to they will go on strike on Monday. This I hardly think probable, as there are more men than work at present and it would be a very bad time for the men to act thus. Personally I believe in the eight hour system, if not abused. It is rather hard for the laboring man to have no time for recreation or self improvement. Take for example a man living in St. Jean Baptiste Ward, he requires to get up about half past five in time to get breakfast and be to work by seven o'clock. As a rule men live a long distance from their work. They leave off at six o'clock, thus making it nearly eight o'clock p.m. before they get home and have their supper; thus no time is left them to take advantage of night schools or any amusement. I would prefer to see all compelled to stop work at five o'clock and to have every Saturday off, but what I fear is, that even if the men's demands are granted, the object will be defeated by "the boss s" not compelling the men to stop work at the proper hour, but holding out inducements to them to work overtime.

REAL ESTATE AGENTS.

The real estate agents of this city are greatly excited by the fact that a firm of estate agents here have petitioned the City Council to impose a special tax upon all real estate agents. They claim the object is to wipe out all the smaller men, and to allow the wealthier members to control the business. Petitions opposing the tax are being presented to the City Council by those interested.

Mr. Dennis O'Brien, contractor, has taken out an action for damages against the syndics of the parish of St. Antoine de Pardou for $10,000. He alleges that they illegally took away from him his contract for building a church without any plausible reason.

STEREOTOMY.

STONE-CUTTING.

By JOHN A. PEARSON.

PART II.

THE RECESSED FLAT ARCH OR PLATE BAND.

AN arch is an assemblage of blocks, mutually supporting, by means of radiating joints between them, and side supports to withstand the lateral thrust. When the arched surface usually curved, is plane, the structure is called a plate band. Fig. 5 is the elevation and Fig. 6 the plan of a rectangular opening through a wall. The joints A, D, U, W, divide J, T, into equal parts and radiate from the centre O, which is arrived

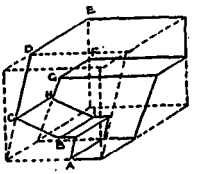

FIG. 3.

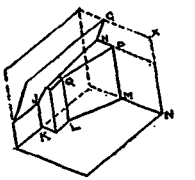

FIG. 4

at by making the O, J, T, an equilateral triangle. The lapping over of the first arch stone at G, F, on the jamb springer is designed to give greater security.

Having set out the plan and elevation, it is required to work the jamb springer, K, L, M, N, X, G, H. I, J, and the first arch stone, A, B, C, D, E, F, G, H, I, J. Fig. 3 is an oblique projection of the first arch stone, looking at it obliquely upward, so as to see its front right hand and under surfaces.

Fig. 4 is an isometrical drawing of the jamb springer, showing the front and left hand surfaces. The different faces will be clearly traced by the corresponding letters on the elevation.

There is no exact order of operation, but the top bed being the largest surface, we should naturally bring that to a plane face by the method explained in our last number. Having accomplished this, we should then work the joint, A, B, C, D, with a shiftstock set to the angle caused by the

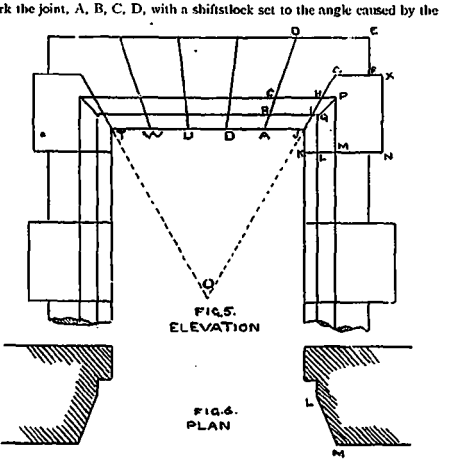

FIG. 5.
ELEVATION

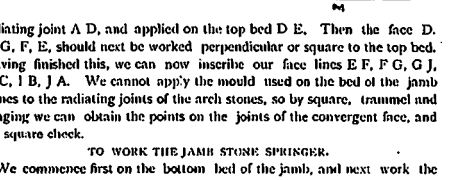

FIG. 6.
PLAN

radiating joint A D, and applied on the top bed D E. Then the face D. C, G, F, E, should next be worked perpendicular or square to the top bed. Having finished this, we can now inscribe our face lines E F, F G, G J, H C, I B, J A. We cannot apply the mould used on the bed of the jamb stones to the radiating joints of the arch stones, so by square, trammel and guaging we can obtain the points on the joints of the convergent face, and the square cheek.

TO WORK THE JAMB STONE SPRINGER.

We commence first on the bottom bed of the jamb, and next work the face M, P, H, G, X, N, perpendicular to it. On this surface apply the face mould, marking the mitre and return of convergent face. Now work the joint J, G, at right angles to the face, carefully noting that the square on being applied is set at right angles to the arris J, G. A draft M, P, can now be raised, holding the chisel at the proper angle so as not to undercut the face; then with a shift-stock set to the angle M, L, at P,, sink a draft, P Q, and work the face through; then with the distance, M, L, marked at P Q, run the draft L Q, and the draft K, J, squaring these faces with each other by a set square.

The top joint, G, X, and side joint X, N, may now be worked, completing the whole. It is the better plan where a mitre occurs, as in this case, to leave about ⅛ of an inch rough to be pared when the stone is set.