measured on certain well-defined principles and so specified and classified that any offerer could easily understand what he was pricing, so that there would be no disappointment nor discontent when the time arrived for the execution of the work. Some of our architects should and did prepare careful and complete drawings before they put them into the measurer's hands, and he believed that all could do it; it was merely a matter of letting their clients understand that time was required. The result would be that generally the details would be fixed and have some relation to the contract drawings. Assuming that they had seen the last of pencil sketches in place of plans, they should see no more estimates that were merely classifications or statements of generalities where distinct parts of the work, such as door-pieces, pediments, dormers, and such like, were covered by single items, the information given being as likely to mislead as to guide, and offerers referred to drawings, which was just laying upon offerers the work for which the measurer or surveyor was paid. If contracts were based on such estimates as had just been described, the benefits of the competition that proceeded on them might be entirely nullified through the operation of extra prices. The architect or measurer, or both, along with the contractor, would have the duty of adjusting these prices, sometimes a very unpleasant one. The building proprietor would be misled as to his outlay, and perhaps have his business crippled, through having to encroach on the capital required for conducting it on a financial basis. These results were not the creation of fancy, but had occurred, and could not but occur in such circumstances. The architect was entitled to expect and to get an accurate estimate when he prepared his plans in the manner desiderated, and the measurer who could not produce such was not worthy of the name. It often happened that the architect did not get the credit due to him for the care and attention he bestowed on the planning, designing and detailing, as well as the superintending of buildings entrusted to him, through the disgust engendered in the mind of the proprietor by the ultimate cost greatly exceeding the amount he was assured would be the cost.

(2) Condition as to Variations.—This condition was usually stated thus: "Full power is reserved to make alterations on plans or mode of executing the work, and to increase, lessen or omit such portions of the work as may be thought proper." There was a full-fledged, full-blown clause, with a fine elasticity about it; and like an elastic band required to be carefully used. If stretched to its limit its recovery was all the sharper in extra prices; if beyond it, it virtually made the contract null and void—that is, not applicable. The exercise of the power reserved in this clause was very often fraught with serious consequences to both employer and contractor, and the architect who could successfully carry out and complete his work by taking the least possible advantage of the power it conferred, would be the most successful in obtaining the appreciation of his clients and maintaining the best possible feeling between himself and his contractors. An idea was abroad that contractors were rather fond of having alterations made on their contracts, but it was an entire hallucination, and could only be entertained by those who knew nothing about building, or, knowing, did not look at facts. When alterations were made they almost invariably deranged the conduct of the work and upset the calculations of the contractor and his foreman, caused delay when there was not one workman less employed, and the workmen were turned to some other work which could be advantageously executed in its proper course. It must be very difficult to ascertain the loss directly and indirectly accruing from very trifling alterations, and it was next to impossible to put a true value on such without having the appearance and giving rise to the suspicion of extortion. The power reserved in this clause must be exercised within reasonable limits, as it did not permit of what might be termed "material" alterations being made on the general structure; and the limit was sometimes fixed at 25 per cent., which he thought rather high. Contractors sometimes complained that alterations were made for the purpose of taking advantage of some specially cheap rate, but he could not sympathise much with that complaint, as they could put the matter right by simply pricing the several items in an equitable manner.

(3) Condition as to Extras.—There was not usually any clause directly providing fos the pricing of extras, but they were held as referred to generally in the clause: "The work will be measured when finished and valued at the rates contained in this estimate or others in strict accordance therewith." This clause could only be applied to the pricing of extras which were similar to work specified in the contract, but when changes had been made in the carrying out of the work it naturally followed that there were items of extras for which there were no rates in the contract directly or inferentially. For such items of extras he had no hesitation in affirming that fair and reasonable prices should be paid. He would recommend measurers who had no authority to finally adjust such rates to leave them severely alone, and give contractors the opportunity of making what they considered a fair claim, and not unjustly debar them from their rights; in this way the measurer maintained his neutral position, and was free to give his opinion or to act as arbiter on the differences that might arise between architect and contractor as to those rates. He himself had frequently so acted.

(4) Condition as to Arbiter.—When any conditions as to arbiter appeared it was in the following or similar form. "Should any disputes or differences of opinion arise on any matter connected with this contract the same shall be and are hereby referred to Mr. ——, architect, whose decision shall be final and binding on all parties without appeal." It was customary for architects who put in such a clause to thus arbitrarily fix themselves as arbiters. Now, seeing that the contract gave the architect full power over the work while in progress, and it was to be completed to his satisfaction, and there could practically be no refusal to carry out his instructions he submitted that the arbiter named in such a contract should be some properly qualified person other than the architect for the building. The architect of the building was an interested party to the contract, employed by the proprietor to attend to his interests, and, perhaps, to keep the cost within limits fixed by himself or by instructions, tempted to carry out such improvements on his design as might present themselves to him during the progress of the work, so that he might produce a building as complete in plan, as pleasing in design, and as architecturally perfect as possible. How could an architect so placed claim to be disinterested in the financial results of his work? Further, the arbiter should be mutually elected by both parties to the contract, and, failing their agreeing on an arbiter, the appointment to be made by the sheriff of the county or some such authority.

The total length of sewers in the city of Hamilton according to the last report is 266,302 feet, or 50.43 miles, construced at a cost of $628,391.02. During last year 9,058 feet of sewers were built.