

# MUNICIPAL DEPARTMENT

## NOTES ON SPECIFICATIONS FOR CAST IRON AND GAS PIPES.\*

C. A. MESSNER, Londonderry, Nova Scotia.

It is my purpose to submit some data on water and gas systems which may prove of interest, not only to the members of this Society, but also to the officials and citizens putting in or contemplating to put in such systems.

This is a subject which has not yet received much general attention here, outside of the larger towns and cities, and comparatively few engineers or town officials have had any extensive experience in these matters; yet as a whole you will find the systems existing doing good service and showing that they are well put in, giving proof of the ready adaptability of the people here to entirely new and unknown conditions.

Practically this whole subject is still in its infancy in the provinces, and hence many towns hesitate to put in water or gas systems just because they are unacquainted with the details, and there are not many authorities whom they may consult or get at easily. Perhaps the good canny Scotch trait of wanting to get information for as little as possible has something to do with this, and keeps some from consulting engineering authorities. This, coupled with a perfectly correct conservatism and "make sure before you leap" frequently causes the projects for supplying water or gas systems to languish.

The difficulties are often magnified owing to lack of information, and yet there is not a town in the provinces that could not and should not have a water

\* Paper Read before Canadian Mining Association.

system. The practical and moral benefits are so apparent that I will not enlarge on the same.

One thing I have often noticed is that the average specification, which is submitted to a town, is a document of such formidable proportions and contents, that it is likely to scare many a councillor and make him defer the consideration from time to time until he has screwed his moral courage to the proper sticking point.

There is really no need for this verbosity and enlarged detail, and as a proof I submit to-day a short, concise specification which is used, among others, by the British Admiralty, and which certainly covers all points in very much less space than many others do. Of course, in large cities and for large contracts when great sums are involved, a particularly detailed specification is often necessary, but for the average small system, this one now submitted answers all practical purposes; and if adhered to will give a good reliable system.

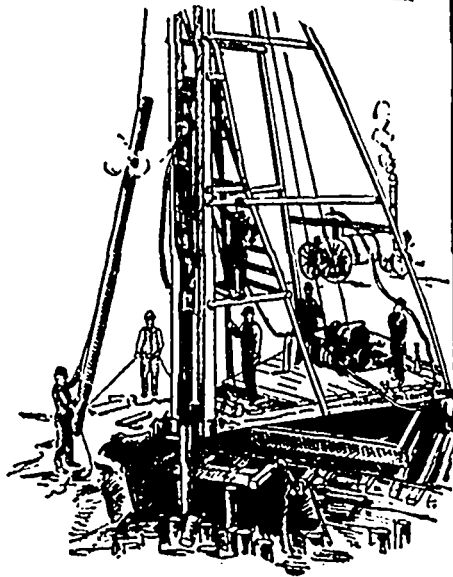
I now want to call your attention to a few points which, in the average specification, strike me as unnecessary and indicate a lack of practical knowledge, which at times may cost the town additional expense through the efforts of the manufacturers to comply with them.

One of these is simply not applicable at all, and is probably the result of copying without thought some engineer's specification who is not acquainted with the detail of pipe manufacture. It refers to testing with a hammer 3 to 4 lbs. and a "6 in. handle!" Now to test pipe under 300 lb. pressure with a 6 in. handle hammer simply means suicide or murder, as the tester must walk along the length of the pipe striking his blows, and if it bursts there is very likely a funeral in prospect at the company's expense, and perhaps a sorrowing family on the conscience of the engineer who insisted on the clause.

You will note that the specification submitted to you does not specify this point. The usual system is to have a 10 ft. handle on the hammer, and tap the pipe under pressure from behind the

tester's screen at the end of the pipe, or by a hammer suspended and having a certain fall, as well as a lateral movement, so as to strike all along the entire length of the pipe.

(To be Continued.)



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