

NATIONAL ASSOCIATION OF MASTER PLUMBERS.

WE hoped to present in this number portraits of the vice-presidents elected at the recent convention of the Dominion Master Plumbers' Association to represent the different provinces, but up to the time of going to press those of Messrs. Doody and Borton, as representing New Brunswick and Nova Scotia respectively, had not come to hand. Portraits of the vice-presidents of Ontario, Quebec and Manitoba appear below.

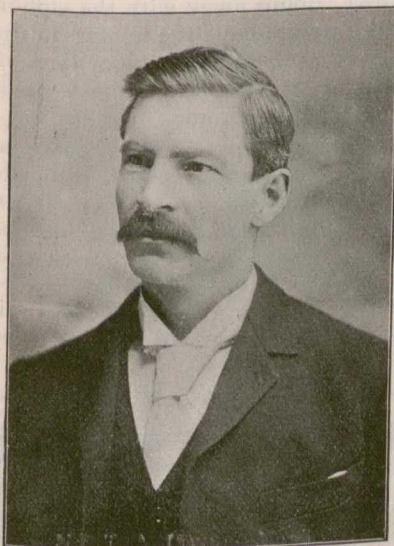
Mr. T. A. Irvine, vice-president for Manitoba, is the senior member of the well-known plumbing firm of T. A. Irvine & Co., of Winnipeg, and an ardent association worker.

In Mr. John McKinley, Ontario vice-president, the association have a valued officer of much ability and keen forethought. He was born in Montreal forty-two years ago, served his apprenticeship with Garth & Co., of that city, and is now a member of the firm of McKinley & Northwood, of Ottawa. His firm have several large heating and plumbing contracts on hand at present, including the Victoria Hotel at Aylmer, new wing to the Protestant Hospital, and St. Mary's school in

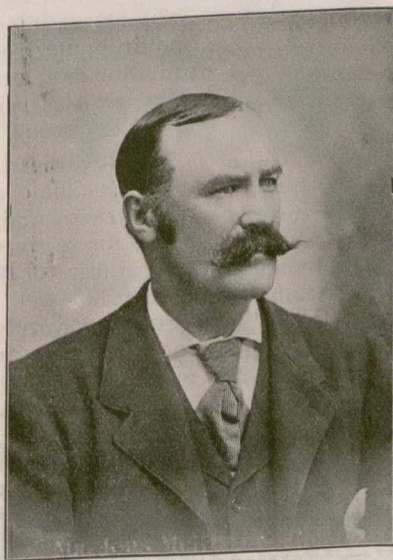
ARRANGEMENT OF MAINS IN HOT WATER HEATING APPARATUS.*

By W. M. MACKAY.

CONSIDERABLE interest is manifested in the proper placing of the hot water pipe heating system, judging from the many and varied questions on this subject which have been handed in to the society by the members from year to year for discussion, and as the success of a hot water heating apparatus is largely dependent on and affected by the arrangement, size, and grade of the flow and return mains and their connections, I will endeavor to present such information as to results as I have gathered on this subject, being my own experience in planning and placing this system in different classes of buildings, my observations of the results obtained by others, and such descriptions of earlier systems as I have been able to obtain. While much has been done and said to popularize and increase the use of this system during the past twenty years in this country, Canada, and Europe, the origin of this system seems shrouded in doubt and dates back further than the earliest writers on this subject have been able to determine. Many of the so-called improved applications of the sys-



MR. T. A. IRVINE—Manitoba.



MR. JOHN MCKINLEY—Ontario.



MR. P. J. CARROLL—Quebec.

VICE-PRESIDENTS OF THE NATIONAL ASSOCIATION OF MASTER PLUMBERS.

Hull. Mr. McKinley has been for the last two years president of the local association at Ottawa.

Mr. P. J. Carroll, vice-president for Quebec, is a popular member of the trade. He was born in Ireland 37 years ago, coming to Canada at the age of four years and serving his apprenticeship with John Burns & Company. Twelve years ago he and his brother established the firm of Carroll Bros., and since the decease of his brother ten years ago, Mr. P. J. Carroll has continued the business under the old name.

Mr. Ralph Hodgins, of Shawville, Que., has recently added a tile machine to his brick manufacturing plant. The machine is steam power and capable of turning out 600 tiles per hour.

The Canadian Locomotive & Engine Company, of Kingston, Ont., will probably engage in the manufacture of steel pipe, under patents granted to F. A. Williams, of Wolverhampton, England.

One of the most successful of the many "new process" white leads is that in which the basic carbonate of lead is made direct from litharge. The process takes about as many days to complete as the Dutch process takes months.

tem which have been presented during the past few years as new discoveries in the art have been found to be but a revival of older ideas and an accurate description of apparatus which actually existed, in some cases, years before the modern inventors and patentees were born, and being what some of our present writers would term obsolete or antiquated.

The arrangement of mains which is most largely used in an ordinary installation of hot water heating apparatus at the present time is a number of flow mains rising from the source of supply to the farthest point to be reached, with a corresponding number of returns of the same size on the same grade falling back to the heater. Some engineers contend that this is wrong and that the radiation would be better and more uniformly supplied with a single flow and return main in the same way, but this statement should always be qualified and the existing conditions considered before it is made, for even a novice will admit that if the heater is placed at a central point to supply radiation in four different directions and this system of mains be em-

*Abstract of paper read before the American Society of Heating and Ventilating Engineers, Jan., 1897.