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Mr. Boyden stated that Mr. W. W. Stevenson, of Pittsburgh, was solely responsible for compiling the complete index of the Proceedings and the Bulletin. Mr. Stevenson stated that the index of the Bulletin was interwoven with that of the Proceedings, and suggested that when printed, those items referring to the Bulletin be indented so as to be easily distinguishable.

Discussion arose regarding the publication of the Index and whether or not it should be included in the Proceedings or printed separately and sold for a nominal sum. It was finally moved, seconded and carried that the Index be incorporated as part of the Annual Proceedings.

References in this style of type refer to the Bulletin.
General Index of Proceedings and Bulletin, from the Beginning of the Association to and Including the Year 1934

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*Welcome address to Rochester by Herman Russell, response to by Wm. J. Baldwin, Jr.—Yr 1934: p 26

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*Welding pipe in ground, technique—Yr 1922: p 237; Yr 1925: p 169; Yr 1931: p 328

*Welds, an electric annealing device for pipe line—October 1934

*Welfare work—Yr 1916: p 48; Yr 1924: p 40

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*Wetherell, H. R.*, the facts in relation to district heating—January 1922

*Wetherell, H. R.*, customer's steam heating systems—Yr 1914: p 172

*Wetherell, H. R.*, president's address—Yr 1915: p 21


*Wetherell, H. R.*, report of technical secretary—Yr 1923: p 30; Yr 1925: p 13; Yr 1926: p 26
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