

# Pioneers of Technology

Joseph Dart and Robert Dunbar

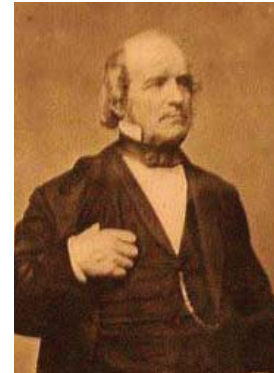
Fathers of the Grain Elevator

"Dart, I am sorry for you ... it won't do; remember what I say: Irishmen's backs are the cheapest elevators ever built." Mahlon Kingman, merchant

The opening of the Erie Canal in 1825 gave Midwest grain its first straight shot at New York. Freight costs immediately dropped from \$100 a ton to \$10 a ton. Buffalo, being at the juncture of the Erie Canal and the Great Lakes water system, was perfectly poised to become the great grain terminal of America.

The problem was that the big boats full of grain coming off the Great Lakes could not fit in the Erie Canal, so they had to be reloaded onto smaller vessels. This is where the Irishman's back came in. Between 1835 and 1841 the annual amount of grain coming into Buffalo rose from 112 thousand bushels to over 2 million bushels, and the immigrant workers were having a hard time keeping up.

In 1843, Joseph Dart, a Buffalo merchant, borrowing from an earlier idea of Oliver Evans, envisioned a steam-powered elevator which could scoop loose grain out of the hulls of ships, store it as needed and then empty it into waiting ships.



As a result, Joseph Dart is given credit in most historical literature as the father of the grain elevator, but I am only awarding 60% credit here because he didn't have the mechanical moxie to bring his idea to life. He had to rely on the talented mechanic Robert Dunbar, who went to his foundry and ironed out all the problems to actually make the system work.

One distinctive feature of Dart's elevator was a "marine leg." It was a continuous belt bucket system poking out like a long proboscis that eased the Irish back. Borrowed again from Oliver Evans, the system worked so well that soon the entire grain transportation network nationwide was dotted with grain elevators. The elevators loaded mainly ships and railroad cars.

Buffalo did gain world fame in the grain trade, but the sands of time shift and it is an empty castle today. Railroads were the first competitors. The second punch was the completion of the Welland Canal in 1932, and the final death blow came when the St. Lawrence Seaway was opened in 1959.

# Quarter Inch Drive

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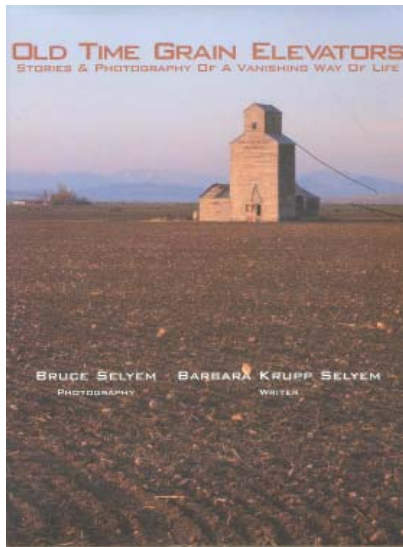


At *The Crossroads*. Reed Point, MT (2011). Wooden grain elevators, with their distinctive cupolas, are being left in the dust and fallow of the fluctuating field of food production on the Great Plains.

Bruce and Barbara Selyem. (2007). *Old Time Grain Elevators: Stories & Photography of a Vanishing Way of Life*.

"I remember in Wolf Point, Montana, back in 1975 during harvest time, the grain trucks coming from local farms would be backed up over a mile waiting to unload into the Centex grain elevator." ----- Duella Hull

The cathedrals of our times, equally interesting as architectural or cultural icons, grain elevators have been the photographic focus of many previous books. Two exceptional examples are Frank Gohlke's (1992) *Measure of Emptiness*, offering bright close-ups and soothing distance landscape shots across open fields, and the scholarly chapbook from Princeton Architectural Press by Lisa Mahar-Keplinger simply titled *Grain Elevators*.



What neither book does is put the human story to the structure like Bruce and Barbara's. Bruce founded The Country Grain Elevator Historical Society in Montana in 1995, and he and Barbara have worked hard over the last decade to "promote the preservation of the country grain elevator and its history."

This book, a web site and a newsletter, is a way of getting the information out on the background, use, past ownership, and current status of hundreds of elevators across the country. By interviewing people and photographing these disappearing landmarks, they strive to "collect, conserve and disseminate information for documentary and educational purposes."

One thing I really like about this book is the interviews with people who worked in and around grain elevators and what it was like during harvest time. If you ever wondered what went on inside these building or why they all have funny little penthouses at the top, get Bruce and Barbara's book and find out. Three thousand copies of the first edition were printed in 2007, and they said another print run will be made if the demand is there. I ordered my copies by calling them at 406-388-9282 or write to them at 155 Prospector Trail, Bozeman, MT 59718.

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