

## A Look at Early 19th Century Beginnings for Flat Pans and Sugarhouses

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**F**ans and enthusiasts of maple industry history are often interested in the details of the beginnings of various methods and technology. Questions like, “When was the evaporator first introduced?” or “How were trees tapped before power drills and metal spouts?” Unfortunately, specific answers to these sorts of questions can be elusive, and the further back in time we go the more difficult it becomes to know precisely when or by whom the use of some tool, equipment, or method first happened. Which is not to say we should not always keep looking for answers that might refine or correct what we know.

In the case of the question of when did sugar and syrup makers start to use sugarhouses, the most common answer is in the 1850s and 1860s when the maple industry introduced and adopted commercially-produced patented baffled and flued evaporators. Sugarmakers located their evaporators inside purpose-built structures to protect their boiling rigs and themselves from the elements while improving the cleanliness and efficiency of their operation.

Looking back to the 1700s and the first half of the 1800s, boiling operations were most often described and illustrated as being outdoors in large iron kettles suspended over open-air fires. In some cases, a small open-sided shed was built to provide shelter for the workers and visitors, but not to protect

the boiling set up. That leaves the question of the intermediary technology and method of using large iron flat pans set on more permanent brick or stone and mortar arches. Did sugarmakers build sugarhouses to protect their flat pans, and when exactly did they start to use flat pans? A closer examination of historic accounts brings answers to these questions into focus.

Taking those questions in reverse, dating the introduction of flat pans has never been easy, and the knowledge that a more rapid heating and evaporation could be achieved by a large flat pan rather than a narrow and deep kettle was not exactly unique to sugarmakers. Most early flat pans were fabricated by a local metal worker or stove maker or were made at home, limiting the amount of advertising and documentation to find in the historic record. Overall, it was fairly well understood that flat pans were increasingly used and replaced kettles through the 1840s and 1850s. It turns out that examination of newspapers from the early 1800s shows that, in certain areas, flat pans were being adopted much earlier.

As early as 1822, newspapers in New York and Maryland reported that Moses Mather of Fairfield, New York (15 miles east of Utica) operated a maple sugar operation in Herkimer County that featured a single sugar

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camp with four, 9 foot by 12 foot sheet iron flat pans, 12 inches deep, resting on walled arches.<sup>1</sup> Sap from 2,000 pails was gathered to make 6,000 pounds of maple sugar (equivalent to 750 gallons of syrup). Mather did not have a sug- arhouse to protect his flat pans and at the end of the season, he simply turned them over until it was time to boil again the following spring. Reading an ac- count of the sophisticated use of an ar- ray of flat pans on this scale suggests that Mather had probably been using flat pans for a number of years and oth- ers in the region were likely also aware of and doing the same. Into the 1830s and 1840s one can find further reports and descriptions of the use of sheet iron flat pans set on arches by sugarmakers in other states.

Review of historic newspaper ac- counts has further led to the discovery of an even more remarkable account, also from New York. In the spring of 1827, the 2,000 tree sugarbush and boil- ing enterprise of a Mr. Adams from near the village of Bloomfield in Ontar- io County (southeast of Rochester) was described in the following detail:

*The place where the sap is boiled is a frame building the size of a small farm house, and situated on a side hill to be somewhat similar to a three story building. The sap is drawn on a level with the chamber or third story and emptied in a trough. It is carried by tubes to a large cistern in the second story, and drawn from them into boilers in the lower story. These boilers are two sheet iron pans similar to those used in manufacturing salt, nine feet long and three feet wide containing nine barrels each. They are shallow and evapo-*

rate the watery particles very fast.<sup>2</sup>

As astonishing as it is to see the description of a sugarhouse from 1827, with its wise placement on the hillside to use the aid of gravity and multiple levels for moving sap, one is immediately left to wonder what exactly did the structure look like in comparison to the traditional image and features of the iconic sugarhouse? Did it have a cupola for release of steam? What about a metal flue stack or brick chimney for smoke and ash? Sadly, in the era before photography, we have limited methods and opportunities for the documentation of the appearance of such early sugarhouses.

Once again consulting old newspapers has revealed what may be one of the earliest renditions of a purpose-built sugarhouse of wood frame construction, complete with a cupola and chimney. In this case, the sugarhouse

of Lyman Hall of Shelburne, Vermont was illustrated in a January 1847 edition of *The Cultivator*, a progressive farmers newspaper published out of Albany, New York. In addition to the drawing shown in the accompanying figure, the sugarhouse included a brick arch for a pair of 5½'x9' flat pans and a double-flued brick chimney. As the article notes, "the building is ventilated at the top by a door which is managed by means of a pulley."<sup>3</sup>

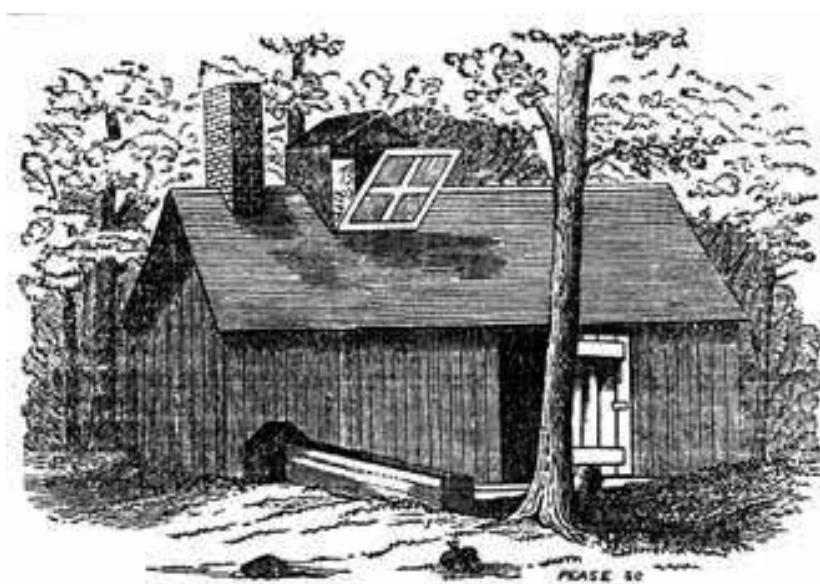
As shown here, with careful and persistent searching of historic documents, research continues to refine and better define our understanding of the timing of events in maple history. In some cases, the results might even surprise us.

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<sup>1</sup> "Maple Sugar," *Herkimer People's Friend*, May 29, 1822; "Maple Sugar," *Maryland Gazette*, August 1, 1822.

<sup>2</sup> "Maple Sugar Manufactory," *New York Statesman*, March 22, 1827.

<sup>3</sup> "Manufacture of Maple Sugar," *The Cultivator*, January 1847, vol. 4, no. 1, p. 24-25.



**MANUFACTURE OF MAPLE SUGAR.**

Illustration from 1847 issue of *The Cultivator* showing the sugarhouse of Lyman Hall of Shelburne, Vermont. One of the earliest visual renditions of a modern-style frame sugarhouse.