

# Weights and Measures In Pre-Confederation Canada

There are many items from the past that have interested collectors. Most of them try to discover more information about the objects that they collect. In my case an interest in early measures began with a few old copper examples that were purchased at farm auctions in the 1970s. Most had marks impressed into the metal that obviously had some purpose. There was nothing in the books I consulted that explained what those marks meant, so my search for information turned to other sources in local museums, libraries and archives.

Although weights and measures had important functions in early trade with other countries, they were most important in the town markets where local farmers and fledgling industries could sell their produce. When laws changed, these measures became obsolete and the metal, usually copper for measures or brass for weights, was used for other purposes. That explains why so few examples are found today.

Measuring systems were common to all early societies. Indigenous people had thousands of years of their own systems.\* All were based on simple ideas. Liquids could be held in containers of certain agreed-upon sizes. The mass of an item could be identified by its weight. Distances were easily described by reference to footsteps or length of arms or feet. No matter what the unit was, there was a need for a society's agreement on these basic ideas. Eventually, rules that regulated such systems were devised and made official by the community's authorities.

The earliest colonial governments brought their trading methods to the new world. This report focusses on the early English and French methods of measurement which differed mainly in the sizes and names of the measuring devices. The basic concepts of the two European systems though, were quite similar, even having some similar sounding names for certain measures, as in "pinte" and "pint".

This history ends at the time of Confederation in 1867. Shortly after that, the Department of Weights and Measures was established as a full government department which within a few years introduced the Imperial System into Canada. That new department brought about changes that centralised the inspections and developed new ways that measures were marked or stamped. Much effort has been made to ensure that the information is carefully documented. I hope that this study will be helpful to those who have an interest in this small part of Canada's early history.

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\*note: It would be interesting for future researchers to look more carefully into this important part of Canada's history

# Contents

Introduction		P. 1
Chapter One	Early Canada	P. 3
Chapter Two	Eastern Canada	P. 8
Chapter Three	New France – 1676 to 1791	P. 14
Chapter Four	Lower Canada – 1792 to 1823	P. 17
Chapter Five	Upper Canada – 1783 to 1791	P. 30
Chapter Six	Measures and Markets Upper Canada – 1792 to 1823	P. 41
Chapter Seven	Upper Canada Weights & Measures Act - 1823	P. 49
Chapter Eight	Makers of Upper Canada Inspectors' Measures - 1826	P. 58
Chapter Nine	Quarter Sessions Records- W & M 1826 to 1830	P. 72
Chapter Ten	Legislation- 1840 to 1859	P. 88
Chapter Eleven	Districts Established After 1841	P. 94
Chapter Twelve	Western Ontario After 1849	P.102
Chapter Thirteen	Southwestern Ontario After 1854	P. 107
Chapter Fourteen	County of Brant-1852	P.118
Chapter Fifteen	Makers of County & Town Measures c 1860	P. 125
Chapter Sixteen	Canada's West Coast	P. 138
Acknowledgments		P. 140

## CHAPTER ONE - Early Canada

Measurement systems developed at a time when people of early civilizations began to barter goods. Those traders needed to compare items that were being exchanged and so various methods were developed, most of them relating to the object's size and weight. Once a weight or capacity had been decided upon, it became a "standard" that was used throughout the trading area. A standard of capacity for a liquid was thought of as a vessel that contained a specific amount of a liquid. An example is the English "quart". Fractions of that "quart" divided into pints and gills, while multiples gave gallons, bushels and barrels. Measures of weight developed from an object of a convenient size. Multiples and divisions of that one item gave a system for weighing things. Distance measures were based on familiar items such as the foot or pace. It became necessary to have a common or "standard" system throughout the whole of a nation. Governing bodies eventually assumed the job of regulating the measuring of goods as part of the policing of trade. Three levels of Standards were eventually developed.

- (1) A set of **National Standards** were kept in a safe place such as a palace or government vault. They were used for checking the accuracy of measures used by inspectors and as a reference when copies were made for merchants, traders and importers.
- (2) **Inspectors' Standards** were precise copies of the originals made for the use of officials who used them to check the accuracy of those used in the marketplace.
- (3) **Working Measures and Weights** were also accurate copies, usually made by local metal smiths and were used in merchant - customer transactions in everyday business.

A variety of materials were used for making these working measures and weights. Glass, wood and pottery were utilised at various times, but the most efficient material was metal because it could stand up to hard use. Copper, pewter and brass were favoured since these metals did not rust or corrode like tin and iron. After long use in the markets however, they were bumped or dented, or in some cases altered intentionally so that they gave inaccurate or "short" measure. There was, therefore, a need for the working measures and weights to be tested periodically to ensure that they were accurate. It was necessary to have a reliable person who would inspect those measures. Inspectors, or sealers as they were sometimes called, were appointed to check those items using official Inspector's Standards. To indicate that the item had passed the inspection, the date along with official brands or stamps were punched into the metal or in some cases burned into the wood of larger grain measures.

Trade throughout Europe occurred in town markets and so the person in charge of the market became the person who regulated the system. In Britain that person was called the "Clerk of the Market". He managed the setup of the stalls, set the fees, charged for the spaces and policed the trading practices which included the checking of weights and measures. In addition to these duties, he was given the responsibility of overseeing the larger "hay scales" along with the weights that were needed for them. Most market towns had these bigger scales for weighing larger items such as wagon loads of hay, grain or other bulky items.

Other commercial activities were established outside of the markets, so the Market Clerk was required to check those measuring devices in the town and its outskirts as well. To indicate that the item had passed the inspection, a system of placing a mark or stamp on the item was employed. Any item that didn't conform to the standard was confiscated and the vendor was fined. This system was common to both of Canada's founders who simply transplanted their system to the new world since the settlers and officials were already familiar with those rules and procedures.

Dishonest traders have always been a problem in the world of commerce. Some found ingenious ways to cheat their clients. Scales could be altered to give false readings. Some vendors used weights that were lighter than the proper size. A measure could be made into one that gave less quantity. By simply denting in the bottom of a measure, the customer got less liquid than he should have. Some examples made by tinsmiths are shown below.<sup>1</sup>



The first photo shows a smaller can set into the bottom section of a haystack measure. The size of the bottom container could not be seen because of the narrowness of the neck. The amount of liquid that was dispensed would have been substantially less than the customer should have received.

The second photo shows halves of two other measures. The one on the right has a false bottom. The half section to the left of that photo has a cylinder in the neck that blocked the correct amount of liquid from being dispensed.

There were many examples of fraud found by inspectors who made surprise visits to merchant's shops. The photo to the right shows items that were found to be illegal in one inspection area in 1926. Scales with spring mechanisms and dials were easily altered to give false readings. That explains why we see so many condemned scales in this photo.



*Inaccurate Measuring Equipment Confiscated from Vendors*

<sup>1</sup> Twitter, Aug. 19, 2015 @legalmetrology- The Black Museum

# Standards in Canada's Mother Countries

## Britain

In the early 17<sup>th</sup> century, measures and weights differed widely throughout the British Isles. The basic units such as gill, pint, quart, gallon, foot and yard, pounds and ounces were common to most parts of the nation but others such as tot, pole, mutchkin and perch were used in local areas. In many cases there were differences in the size or length or weight of similarly named units. By the end of the century, however, most of the weights and measures had been standardized and developed into a system of three components.

### 1. Capacity

#### Liquid Measure

a) Old English Ale measure was used in Britain exclusively for beer and ale. Use of this system in British Canada was abandoned by the late 18<sup>th</sup> century.

b) Old English Wine (Queen Anne) measure was used for other liquids such as liquor, milk, and wine. By 1792 the Wine measure was used in Canada exclusively for measuring liquids.

#### Dry Measure

Winchester or Corn Measure ("corn" is another term for grain) was used for grains, seeds, salt, spices and flour. Because the original standards were kept in the city of Winchester, they took on the name of that city. Winchester dry measures and Wine liquid measures are still the basis of the measurement system in the United States.

### 2. Weight

Produce sold in the Canadian markets was weighed using the avoirdupois weight system that had its genesis in medieval France but was developed in Britain. Most of these weights were in a bell shape, with a handle-like top to aid in gripping. The weights ranged from 56 pounds to 1 pound. Pounds were further divided into ounces and drams.

Coins and precious metals were weighed under the Troy weight system which used grains, pennyweights, ounces and pounds, all of which had different weight values than avoirdupois.

### 3. Length (Distance) and Area

The common inch, foot, yard and mile as well as the rod and acre were all carefully defined. Britain began a revision of their measures policies in the late 18<sup>th</sup> century. A great effort was made to ensure that the system was accurate and that their physical standards conformed to strict principles of science. The impetus for this re-evaluation was the work that the French were doing on their Metric system. After much study, Britain officially adopted the new Imperial System in 1824 but took until 1826 for its full implementation. North America retained the older system - Canada until after Confederation, the U.S until the present day.



*Elizabethan Weight 1558-1592*



*Exchequer Gallon 1601*



*Henry VII Winchester Bushel*

## France

Just as in Britain, measuring systems developed throughout France, sometimes with considerable variations in different geographic areas. There were units that were common to other countries. For example, the relation to English units is evident in the old French “pinte” and “quarte”. Even the French “boisseau” was found in England as the similar sounding bushel.

When English rule in New France began in 1759, the French settlements were allowed to retain most of the French measures. The Minot was a dry measure, slightly smaller than the English bushel while the boisseau was a third of the size of a Minot. The perche and the arpent had similar functions in that they were used to measure both distance and area. The arpent for example was a distance of 192 feet, while in area it represented a little less than an acre.

A number of these measures were used in French Canada long after they had become obsolete in France. Legislation in Lower Canada in 1799 stipulated that standards of those old French measures were to be made for the government inspectors in Quebec. Many rural areas of Quebec used them right up until Confederation.



*Brass Chopine, France 1771*



*Bronze Quarte, France 1687*



*Copper Pinte, France 1774*  
Musée Carnavalet, Paris

The period of the Revolution in France was a time of freedom of thought and a desire for change. Weights and measures that had been developed in the 18th century were adopted by the new regime in 1799. That was the Metric System. After the French Revolution ended however, the public became disenchanted with the unfamiliar new system. Much of it was abandoned and most of the earlier measures were brought back into general use.

The benefits of the metric system were eventually realised, and it was reinstated in France in 1837. Britain along with the United States and Canada, never accepted the system even though several European nations had adopted it. Other countries around the world eventually recognised its benefits and began to make use of it as well.

The scientific world especially liked the system's simplicity and ease of calculations, and so it rapidly came to be used in science laboratories worldwide.<sup>2</sup>

<sup>2</sup> History of the Metric System, Wikipedia – and [http://www.sciencemade simple.com/metric\\_system.html/](http://www.sciencemade simple.com/metric_system.html/)

## Standards in Colonial Canada

The units that had been developed in both Mother countries were recognised as important aids to their national commerce. In the late Middle Ages those governments had brass or bronze examples carefully constructed to the length, weight and capacity of the originals. Those official copies, both in Britain and in France, were kept locked in guildhalls or government armouries and were used to check on the accuracy of any copies that were made. Some examples of those early measures have been preserved in museums in both countries.

Authorities supplied copies of those standards to their colonies so that officials could check the accuracy of the “working” measures that were used in the markets and in trade with other nations. Most of these original standards for the 17<sup>th</sup> and 18<sup>th</sup> century North American colonies would have had the same markings as those used in the home country. Since they were marked with the home country’s name and maker, most of them have gone unrecognised as having any relation to early French or English Canada. Some exceptions have been noted in the pre-revolutionary United States. In the 18<sup>th</sup> century while under British rule, the governments of their American colonies contracted with specialist firms in England to make their official standards. Randolph County in North Carolina has an almost complete set made by a London maker in 1804. (The full story of these measures can be accessed online.)<sup>3</sup> Various English manufacturers supplied inspectors’ standards to the Atlantic maritime colonies as well as to Upper and Lower Canada and Vancouver Island. They were always marked with the maker’s name.

Most countries in Europe, as well as the United States, allowed the use of pewter for the construction of their measures, however no official Canadian measures were ever made from pewter! Pewter is a malleable metal alloy, traditionally 85–90% tin, with the remainder consisting of **copper, antimony, bismuth and lead**. It was eventually discovered that lead was poisonous, and it was eliminated from the metal by the late 18th century. There were many who still perceived that pewter was dangerous and might have caused the authorities to reject the use of that metal. Also, tin was not mined in Canada, so pewter had to be imported and was therefore more expensive than other metals.

The metric system was instituted in France in 1799 but had no effect on French Canada’s measurement system since the British Wine and Winchester system had been made legal in Lower Canada earlier in that decade. No metric measures were ever used in early Canadian commerce!

However, since most research labs throughout the world began to use the Metric System, it was necessary to have sets of them for laboratory work in Canada’s universities and research facilities. In 1871 the Metric System was rendered permissive by 34 Vict. C. 24, (Canada). It was re-enacted by the Consolidating Act of 1873.<sup>4</sup>

Official metric measures were acquired for the Weights and Measures department in 1909 in order to have a reference for checking the laboratory and research Metric sets that were in use across Canada.

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<sup>3</sup> <http://www.randolphlibrary.org/highres.aspx?bibID=206119&img=2014access.jpg>

<sup>4</sup> History of the Metric System, Wikipedia

## CHAPTER TWO- Eastern Canada Nova Scotia

The first permanent settlement in Maritime Canada was established by Champlain in 1604 along the Bay of Fundy at Port Royal and was called Acadia. The settlers were French peasants and so the French measurement system was used. Britain's colonies on the Atlantic coast had developed along with the American colonies to the south and both utilized the measurement systems of Britain. When Britain took over Acadia in the years after the capture of Port Royal in 1713, the English system of law and commerce was imposed. The Acadians refused to sign an oath of allegiance to the British King and surreptitiously gave assistance to the French army that still occupied Fort Louisburg (which was finally captured by the British in 1758). They had grown accustomed to the old French units and persisted in using them - even after the removal of most of the Acadians to Louisiana in 1755.

Those inhabitants of the Fundy area were required by Proclamation in July 1732 to use "a stamped Bushel, made according to the Said Standard, under penalty of five pounds and forfeiture of the Corn".<sup>1</sup> They were also required to pay 2 pence for the "stamping". There was a complaint that many of the half bushel measures being used were "false and unjust and not conformable to the standard". Deputies were ordered to "search for and bring in all the half-bushels to be duly compared and others carefully made and adjusted".<sup>2</sup> This statement shows that there were local metal smiths who could make new and accurate working measures. A proclamation in February 1733 stated, "the new standard measure is now ready". The existing measures were to be brought to the officials to be inspected and "to receive the legal stamp".<sup>3</sup>

Two years later it was found that the French half-gallon was still being used. An order went out immediately for the English officials in the Minas district to find these measures and "bring them in to be compared and adjusted with the proper standard".<sup>4</sup>

In October of 1758 the government of Nova Scotia passed an act that made legal the Winchester Dry measure system and the Wine system for liquids. "An Act relating to the Assize of Bread and for ascertaining the standard of Weights and Measures" stated that they would be "according to the standard of the Exchequer in England". The treasurer of the province was ordered to "procure a sett of measures, long, liquid and dry, and a sett of brass weights and scales". In the meantime, "the weights at His Majesty's ordinance store shall be the standard". Also "the Clerks of the Market for each town, shall procure therefrom a sett of weights according to such standard, which shall remain with them as assay weights, and shall be marked with the letters G II :R" The next clause of this Act ordered that each inhabitant must take to the Clerk their "weights and measures to be assayed" and have them "stampd with the initial letter of the town where such assay shall be made" The act concluded with the warning that penalties would apply if "all such are not stampd or branded as aforesaid", the fine amounting to ten pounds.<sup>5</sup>

The following year saw an addition to the rule. Steelyards, simple balance scales, were found to be inaccurate and so they were outlawed, a fine of twenty shillings being the penalty for illegal use. It also stated, "the Clerks of the Market are hereby impowered to inspect all beams and scales, weights and measures-". A further rule extended the authority of the Clerk to any ships anchored in the harbour or moored at the docks.<sup>6</sup> The General Sessions in its meeting of May 1801 imposed a 3 pence duty on wine to pay for standard weights and measures.<sup>7</sup>

A Grand Jury meeting in Halifax in March of 1838 "recommended that a new set of Standard Scales, Weights and Measures be procured for the use of the County, to be kept in charge of the

<sup>1</sup> Nova Scotia Archives and Records Management – Records of British Government at Annapolis Royal – P. 242

<sup>2</sup> Ibid, p 190

<sup>3</sup> Ibid, p 193

<sup>4</sup> Ibid, p.205

<sup>5</sup> Nova Scotia Archives, Nova Scotia Statutes, 32 Geo. II, Cap. 21

<sup>6</sup> Ibid, 32 Geo. II, Cap. 21

<sup>7</sup> The Diary of Simeon Perkins, 1797-1803, Toronto, Champlain Society, 1967, p.307



Clerk of the Market”.<sup>8</sup> Presumably, these were acquired for the Market in Halifax. A bill passed in March of 1841 provided for “Hay Scales, and Weights and Measures for the Township of Lunenburg”.<sup>9</sup>

The revised Statutes of Nova Scotia of 1851 stated that the weights and measures used in the markets “shall be according to the standard now in use.” Secondly, “The clerk of the peace shall be furnished at the expense of each county or district, with a set of standard weights and measures.” Third, “the clerks of the peace or the town clerk shall keep a set of weights and measures which shall be stamped by the clerk of the peace with the letter S”<sup>10</sup>. Fourth, the market or town clerks “may enter all stores, shops, and places of business, and all vessels and may examine every weighing apparatus and the weights and measures therein.” The fifth part discussed the penalties that could be imposed.<sup>11</sup> The rules noted above were revised and in July of 1855 they were printed in the Halifax Colonist Newspaper as an Ordinance of the City of Halifax. It said that “Clerks of the Market, as soon as they have been sworn in each year, were to take into their charge the Weights and Measures belonging to the City”. They were to visit baker’s shops once a month and inspect the Weights and measures there. “They shall visit other shops to ascertain the correctness of the Weights and Measures in use. It shall be their duty to stamp and mark all Weights and Measures which they find correct and seize those deficient”. Finally, “The stamp used shall be the letters HX”.<sup>12</sup>

The Consolidated Statutes of Nova Scotia, published in 1864, ordered that a set of measures was to be furnished to the Clerk of the Peace of each county or district, at their (the County’s) expense. Persons involved in the sale of any commodity were made responsible for having their weights and measures assayed, at the cost of 3½ cents to be paid to the clerk. Each one was to be stamped with the initial letter of the town. Inspection was to occur every three months, while the penalty for selling with unmarked weights and measures was four dollars for each infraction. The penalty for using false measures was forty dollars.<sup>13</sup>

An Ordinance of the City of Halifax, passed  
15th November, 1854.

It is ordained by the Mayor and Aldermen  
of the City of Halifax, in Common Council  
convened :

**CLERKS OF MARKET.**

1st. The Clerks of Market, as soon as they  
have been sworn into office each year, shall  
take into their charge the Standard Weights  
and Measures belonging to the City.

2nd. It shall be their duty to visit all Baker's  
Shops within the City, at least once in every  
Calendar Month, and to inspect the condi-  
tion of the Weights and Scales used there,  
and of such of Bread as they may find on the  
premises.

3rd. They shall visit once in every year all  
Shops, Warehouses, Ships, and Vessels, or  
places within the City, where any kind of  
Goods are sold by weight or Measure, and as  
such visit diligently ascertain the correctness  
of all Weights and Measures in use.

4th. They shall in addition make such fur-  
ther visits to any place or places as the Mayor  
may direct.

5th. It shall be their duty to stamp and  
mark all Weights and Measures which they  
find correct, and seize those deficient.

6th. The stamp used shall be the letters  
HX.

7th. It shall be also their duty to report in  
writing quarterly, or oftener if required by the  
Mayor, their proceedings, showing particu-  
larly any deficiencies, or subjects of seizure or  
prosecution.

*Halifax Market Rules, Measures and Weights*  
*The British Colonist, Jul. 12, 1855*

<sup>8</sup> Journal and Proceedings, House of Assembly, Nova Scotia, 1838, p 160

<sup>9</sup> Ibid P. 184

<sup>10</sup> Revised Statutes of Nova Scotia (1851) p.341 Chap. 86

<sup>11</sup> Revised Statutes p. 257

<sup>12</sup> The Colonist Newspaper, Halifax July 12, 1855, p 4

<sup>13</sup> Revised Statutes, op. cit. p 341

## New Brunswick

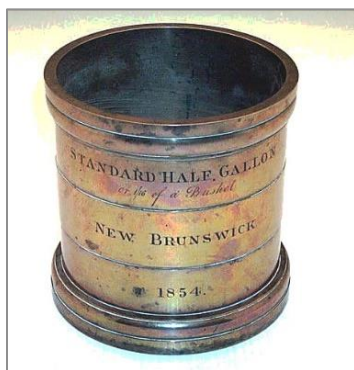
New Brunswick was separated from Nova Scotia in 1784, officially becoming a province of Canada shortly after that. The governor, Thomas Carleton and his Council began legislating in 1786, and passed a few laws, one of which was the “Act for the regulating of Weights and Measures”. It emphasized that “there shall be one just Beam or Balance, one certain Weight and Measure, and one Yard according to the standard of his Majesty’s Exchequer in England, used throughout this Province”. A fine of five shillings was to be levied against anyone using “any other Weight, Measure or Yard”. The law also required that “the clerks of the market in towns or parishes shall procure a set of weights and measures according to such standard and shall cause to be assayed, sealed and marked with G.III. R. all weights and measures brought to him for that purpose”. The clerk was to receive one penny for each item that he sealed. The law set harsh penalties for the clerk if he refused “to assay, seal and mark any Weight or Measure” The penalty was high, - five pounds for each offence, the money to go to the poor of the town or parish.<sup>14</sup>

The revised acts of 1853 changed the inspection procedure. The clerk of either the town or the market “may enter all places of business, and all ships and vessels to examine weighing apparatus.”<sup>15</sup>

An entry in the accounts of the House of Assembly for May 1854 shows that the Standard Weights & Measures ordered from Britain cost 2500 pounds. Such a large sum indicates that several sets were ordered. No information has been found to identify the exact number delivered.<sup>16</sup>

A set of 8 measures and 7 weights dated 1854, are presently displayed in the courthouse in St Andrews N. B.<sup>17</sup> The 56-pound weight dated 1854 is in the collection of the Canadian Museum of Science and Technology in Ottawa. The three measures that are shown here, all with the same date and maker are in private Canadian collections. An 1854 New Brunswick standard bushel sold at a 2009 auction in Vancouver for \$2700.<sup>18</sup>

These measures were made in England by Troughton and Simms, a well-known maker of scientific instruments.



Half Gallon Dry Measure 1854



Quart and Half Gallon Liquid Measures 1854



New Brunswick 56 lbs 1854

<sup>14</sup> Acts of the General Assembly of New Brunswick – 1786, 26 Geo. III, chap. 15

<sup>15</sup> Ibid, 16 Vic., 1853, Chap. 30

<sup>16</sup> Journal of the House of Assembly of New Brunswick, Feb. to May 1854, P. 132

<sup>17</sup> Library and Archives Canada, “View of Interior of Display Case- “Eric Arthur Collection, (R9112-0-2-E)

<sup>18</sup> Maynards Antique and Fine Arts Auctions, Vancouver, June 18, 2009, \$2700 plus tax of \$486



*This measure sold at Waddington's Toronto auction in 2016 for \$3600 (plus \$288 in tax)*

## Prince Edward Island

In 1795 because of “great Frauds being committed daily” on the Island of St. John, (now Prince Edward Island), there was passed “An Act for ascertaining the Standard of Weights and Measures in this Island”.<sup>19</sup> The Public Treasurer was directed to procure a set of measures as well as weights and scales. Until they arrived, “the Weights and Measures now used at Charlotte-Town shall be the Standard”. The set referred to here was possibly one that had been supplied to the Customs Office.

Every person who used measuring devices was directed to “take them to the nearest Justice of the Peace to be by him assayed in the best Manner he can in the mean Time”. Measures were “to be brought to him to brand or otherwise mark the same”. When the official measures were delivered, the retailers’ measures and weights were to be inspected again and then if correct were to be “branded or stamped with the letters **G.R.**”<sup>20</sup> “As soon as the Standards do arrive, the said Treasurer shall cause to be made Two complete sets of Weights and Measures agreeable thereto”, one set for King’s County, the other for Prince County.<sup>21</sup> This is an indication that local coppersmiths were given the job of producing copies for the inspectors. Note that Nova Scotia officials employed local brass workers to make standards in 1733. (See Ch. 1, note 2) Upper Canada in 1825-6 also provided inspectors with sets that were made locally. The Standard measures finally arrived on the island in 1819.

In 1856 all the previous acts were repealed, and a new law was passed. It stated that the standards of 1819 were to be used. Assayers of Weights and Measures were to be appointed for each county and were to be “furnished with a complete set of standard weights and measures”. They were required to publish in the Royal Gazette, the location of the office where the standards were kept and where the assaying would take place. Inspected items were to be stamped with the sovereign’s initials.<sup>22</sup>

<sup>19</sup> Prince Edward Island, Statutes, 15 Geo. III, 1795 Cap. 12. P.176.

<sup>20</sup> Ibid, P. 177

<sup>21</sup> Ibid, 16 Vic., 1853, Chap. 30

<sup>22</sup> Acts of the General Assembly of Prince Edward Island, Cap. 3. 19<sup>th</sup> Vic., P.81

## Newfoundland

No records of any pre-1834 weights and measures of this colony have been found although it is known that at least one earlier set existed. In 1836 a Mr. Daniel who had been appointed as inspector for the Northern District “applied for a set of standard weights and measures, similar to those imported in the year 1822”.<sup>23</sup>

Newfoundland’s House of Assembly passed an act in 1834, “To regulate the Standard of Weights and Measures in this Colony”.<sup>24</sup> It was specified that by January 1, 1836, all measures in Newfoundland would be based on the standard of the United Kingdom which at that time was Imperial Measure. “The Treasurer of the Colony is directed to order from England a sett of Weights and Measures agreeably to the aforementioned standard.” The act then specified that an assayer was to be appointed for each district in the colony to “assay and adjust all such beams, Weights and Measures as shall be brought to his office --- and shall stamp and mark thereon the letters W.R. or the initials of the reigning monarch” and “those of the assayer also marked thereon.” The inspector was “entitled to receive from the respective owners thereof the sum of three pence sterling for every beam, weight or measure so stamped”.<sup>25</sup> The original set of measures from England was to be used by the Assayer (or Inspector) of St. John’s District.

The next section of the act stated that “the Treasurer of the Colony shall order additional setts of Weights and Measures - to furnish each of the assayers who shall be appointed in the different Districts of the Island.”<sup>26</sup> These “setts” were intended to be used by the inspectors and would have had only the capacity (or weight) and district engraved on them. It is clear then, that only the merchants’ working measures would have had other marks stamped on them. As noted above, those stamps would have been the Sovereign’s mark and the assayer’s initials.

It wasn’t long before complaints were heard from the assayers. Thomas Williams had been appointed Inspector of Weights and Measures for the St. John’s District in August of 1834. He petitioned the House of Assembly in February of 1835, explaining that after performing his duties to the letter of the law and after paying the expenses he was left with no money for his labours. After some weeks of deliberation, the House awarded him 35 pounds. Complaints from other inspectors were filed, but only a few received some smaller amounts of compensation.<sup>27</sup>

No list of the districts accompanied the Act, however an entry in “Hutchinson’s Directory for 1864” listed four districts, St. John’s (also called Central), Harbour Grace, Carbonear and Brigus.<sup>28</sup> The number of W&M inspectors listed in Lovell’s 1871 Directory was eighteen. In the 1877 directory there were fifteen official districts, but there were 22 inspectors.<sup>29</sup>

A set of brass measures in the collection of the Museum of Science and Technology in Ottawa was thought to be part of the 1834 set discussed above. The two largest were engraved “St. John’s” and “Newfoundland” and were probably part of the 1834 official set. The others in this group are not engraved with the District name and so were not part of the original standards. The monarch in 1834 was William IV, but enlarged photos reveal that a stamped mark on some (see photo below) is from the reign of George V (1910 to 1936), which indicates that the weight was used at a much later period. George IV died in 1830, four years before this set was issued.

Known examples of weights from Niagara (1826) and Brant County (1856) in Upper Canada show an earlier style with a flat-topped handle. These weights have handles that display four different forms. The photos show scratches, bumps and dents, consistent with heavy use in trade and commerce. The inspector’s Standards, although in use for several decades, would

<sup>23</sup> Journals of the House of Assembly of Newfoundland, 6<sup>th</sup> Session of First general assembly, 1836

<sup>24</sup> The Royal Gazette and Newfoundland Advertiser, June 24, 1834, P.1

<sup>25</sup> Ibid, Section II

<sup>26</sup> Ibid, Section IV

<sup>27</sup> Journal, House of Assembly, Newfoundland, St. John’s, 1841, Appendix - p.114, National Library of Canada

<sup>28</sup> Hutchinson’s Directory, for 1864

<sup>29</sup> Lovell’s Province of Newfoundland, Directory 1871



*Weights – marked St. John's Newfoundland*

*Museum of Science and Technology*



*Shows marks made by hard use*

not have been subjected to such hard use as shown on these six smaller examples. The slight differences in colour and handle shape also suggest that these six are likely to be a made-up set of merchant's working weights from the end of the nineteenth century. When the Consolidated Statutes were published in 1872 and although the earlier laws were unchanged, some new rules were instituted. A complete set was to be kept in the Customs Department to "constitute the standard". It appears that at least one new set was issued around this time. Duplicates were to be made "for the use of the inspectors" and were to be "marked with the monarch's initials, the letters N.F.L. and the initials of the person proving the same."<sup>30</sup> This "person" was the inspector who had previously been named in the 1834 law where it was also stated that the assayer must stamp his initials on each item that he certified. There are many marks found on these weights and it has been possible to identify two men who were inspectors in the late 19th and early 20<sup>th</sup> century. Thomas Brien is listed as assayer for St. John's in the 1877<sup>31</sup> and 1910 directories. His initials are marked as TB on several of these weights. The letters MJO found on three of the smaller weights coincide with Michael J. O'Mara who was the chief inspector of weights and measures in St. John's in the 1920s.<sup>32</sup>



*Base of the seven pound St. John's weight showing the lead plug in base*



*Close-up of the GR with crown stamped in the*



*View of handle with initials on the 4 lb weight. "TB" is above "MJO"*

*Photos courtesy of Museum of Science and Technology, Ottawa*

<sup>30</sup> Consolidated Statutes of Newfoundland, Title XXV, Chap. 93. Sec. 1-3

<sup>31</sup> Directory of Newfoundland 1877, by John Rochfort, Printed by Lovell Publ., Montreal AND St. Johns City Directory 1924

<sup>32</sup> Lovell's Gazetteer of British North America, 1871 -- and Year Book and Almanac of Newfoundland - 1910

## CHAPTER THREE - New France -1676 to 1791

New France grew and developed its trade in this period. Furs were very important in the early days, and timber was harvested in accessible areas along rivers. As land was cleared and crops were grown, farm produce became another important trading item. All these commodities made it necessary for weights and measures of the mother country to be brought to the New World and employed in the same manner as in France. Markets were established in the port towns along the St. Lawrence and market clerks ensured that fair trading practices were followed, and that weights and measures were routinely checked for accuracy.<sup>1</sup> Measures, also from France were used in the Customs houses to help compute the duties to be paid to the government. None of those measures would have had markings that would have identified them as having been used in New France.

The first weights and measures law in Canada was enacted May 11 in 1676 by the Superior Council of Quebec led by “Duchesneau, Intendant”. It stated that “all weights measures such as minot, demi-minot, boisseau, pot, pinte, chains, balances and generally all that is necessary for the buying and selling of merchandise must have the mark of the king stamped on each measuring device by the town clerk and a fee of five sous paid to him for each mark”.<sup>2</sup> It is not clear what the mark of the king was at that time, but it was most likely a fleur-de-lis because a later law specified that it was the mark to be used. In about 1725 Jaques-Ange Le Normant established Paris Weights and measures as the standard for the Colony.<sup>3a</sup>

That later law was enacted on July 22, 1730 and specified that Montreal merchants’ measures must be inspected and stamped with a fleur-de-lis if correct. It stated that the local weights and measures should “conformement a la Coutume de Paris”.<sup>3</sup> This law was extended to apply to Quebec City in 1732. Evidently, there were several sets of French standards that had been brought to New France. The village police in Quebec and in Montreal were to enforce the new law and were given the power to confiscate any false weights or measures.<sup>4</sup>

The minot, equal to 39 litres, was a dry measure used for grains and was equivalent to three boisseaux. The pot, pinte and chopine were measures used for liquids. A pied was similar to the English foot, equalling 12.789 inches. The perche and the arpent were measures of both length and area. A Quintal was a weight equivalent to 100 livres (or pounds).

The use of the old French measures was allowed right up until Confederation, although their use after 1763 was generally confined to the rural areas of Quebec.

### The British Regime in French Canada

After Canada became a British possession in 1763, Governor James Murray on Sept 3, 1764, decreed that all weights and measures “shall be according to the standard of the Exchequer of England” and “the Receiver General procure a set of measures, long, liquid and dry, and a set of brass weights and scales and until such weights and measures arrive, those of the Customs House shall be the standard: And the Clerk of the Market shall procure a set of weights to be marked with the letters G.III.R”<sup>5</sup> No further mention of these early measures has been found in the records, nor have any examples of them been discovered. It is probable that there were no marks that would identify them as Canadian.

Since the system in England was based on public markets in the larger towns, that concept was retained in the Americas as well. It is interesting to note that “the earliest legislation in America

<sup>1</sup> Wikipedia, New France, The Council and the Intendant, Functions and Achievements

<sup>2</sup> Internet Archive, Metrology, Otto Klotz, Literary and Scientific Society, March 22, 1901, page 5

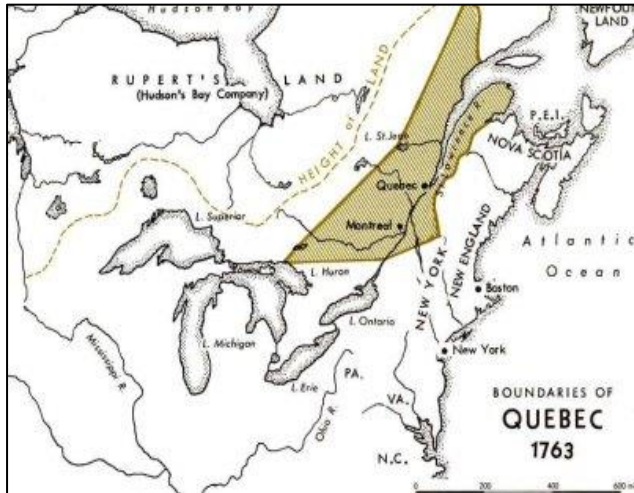
<sup>3a</sup> Dictionary of Canadian Biography (See Le Normant DeMezy)

<sup>3</sup> Metrology p.5.

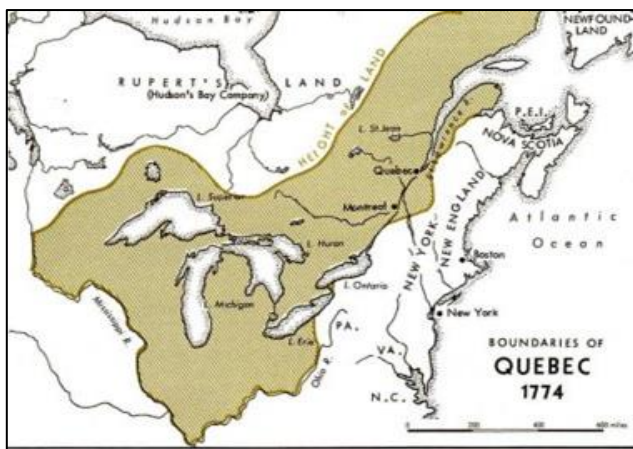
<sup>4</sup> Metrology p.6

<sup>5</sup> Metrology. p. 6

was the order of March 5, 1623 in the colony of Virginia whereby weights and measures were to be sealed by officers appointed for that purpose”<sup>6</sup>



was directed to brand or stamp the item with the initial letter of the town. Strict rules and stiff fines were to be levied by the Market Clerk for any breach of the rules.<sup>8</sup>



each loaf was to be marked with the baker's initials. Inspectors were empowered to seize all "such as shall be found under the weights and assize established by this Ordinance"<sup>10</sup> Firewood too, was often sold fraudulently and so a law was passed in 1765 to regulate the size and price of a cord of wood.<sup>11</sup> Regulations that were set by the Montreal Justices ordered that the clerk of the market should examine and stamp all weights and measures.

The rules were made to apply to natives as well. A proclamation in 1775 stated that disputes with Indians would be settled with reference to "Standard Weights and Measures to be kept in each Post or Truck-house in the Northern District and in each tribe in the Southern District."<sup>12</sup>

The population of the settlements along the St. Lawrence and Lake Ontario grew steadily, farmers prospered, and the amount of cleared land devoted to grain crops increased. Much more flour was shipped and so new rules about cask sizes were required. In 1785 the laws for packing flour in barrels were re-written. Strict rules about the size and weight of the barrels were enacted.

Market Clerks were appointed for each of the three major towns, Montreal, the town of Quebec and Three Rivers.<sup>7</sup> They were made responsible for the accuracy of merchants' weigh scales and the measures used for selling liquids, grains and other dry items. The "Clerk of the Market" became an official title and he was given considerable power to oversee market affairs.

The law stated that a week after the arrival of the official weights and measures, anyone who used local measures in trade was required to bring them to the clerk to be assayed. They were to pay him "two pence and no more" for his trouble. In addition to the Monarch's initials he

There were merchants with shops outside the markets who also sold goods by measure and weight. In a larger town with a market, it was practical for the market clerk to be responsible for inspecting those few inn-keepers and merchants

The price of bread was closely regulated "to ensure that wholesome bread, the main item of sustenance of the common people, is available at reasonable prices".<sup>9</sup> In the 1764 law, the weight of a loaf of bread was specified as a "sixpenny loaf" (a weight of a loaf in relation to the price of a bushel of wheat which at this time was set at four pounds sterling). In addition,

<sup>6</sup> Metrology, p. 6

<sup>7</sup> An Ordinance Relating to the Assize of Bread and for ascertaining the Standard of Weights and Measures in the Province of Quebec, Sept. 3, 1764, *Department of the Secretary of State- Sessional Paper #29b, 1914, p. 50*

<sup>8</sup> *Ibid.*, p.50

<sup>9</sup> *Ibid.*, p. 51

<sup>10</sup> *Loc. cit.*,

<sup>11</sup> *Ibid* P.74

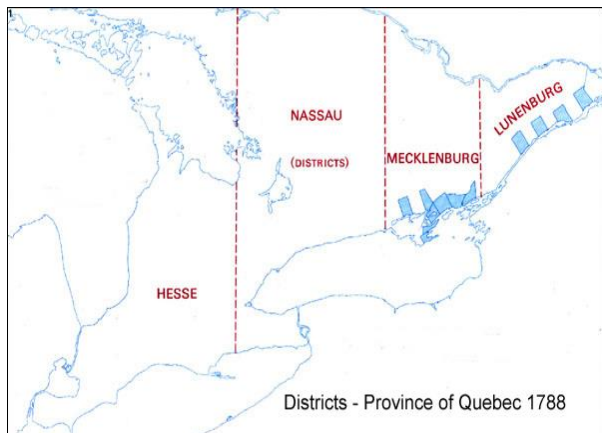
<sup>12</sup> Fourth Report of the Bureau of Archives for the Province of Ontario, 1906, P. 78, Proclamation by Governors etc.,1775

Inspectors were appointed to ensure that these laws were observed - the ordinance running to four pages.<sup>13</sup>

Two years later, in 1787, a group of Quebec merchants submitted a report to the governing council. They voiced several concerns about the way the Province was governed, and a number of suggestions were put forward. One of them argued that the measurement system was greatly abused and needed to be changed. It was suggested that much fraud abounded due to the lack of government regulations, “scarce two weights or two measures are found exactly alike”. “The proper officer should procure and keep stamped weights and measures for a Standard”<sup>14</sup>. Such officer should examine and stamp all weights and measures on being paid a reasonable allowance for his trouble and a fine sufficient to prevent evil practices.”<sup>15</sup> Many of these merchants were wealthy and had considerable influence with government politicians. There is good reason to believe that these suggestions influenced the writing of the subsequent laws.

## The Partitioning of Quebec

A major consequence of the American War of Independence was the exodus of refugees from the south who wished to remain loyal to the British king. They came from the new American republic into the unsettled western lands of what was then the Province of Quebec. These lands extended westward towards the upper St. Lawrence and along the shores of Lake Ontario. Immigrants from the British Isles also began to arrive. The result was the establishment of a large English-speaking population in these lands. As these “Loyalists” began arriving in the 1780s the lands to the west of Montreal were surveyed and a township system was developed.



In July of 1788 a proclamation issued by Lord Dorchester, the Governor of Canada, ordered that the new western lands be divided into four districts. They were named in honour of the British royal family whose forbears were of the Prussian-German aristocracy. They were—  
*Lunenburg* - Ottawa River to Gananoque River.  
*Mecklenburg* - Gananoque River to Trent River  
*Nassau* - Trent River to Long Point in Lake Erie.  
*Hesse* - included all land to the west.<sup>16</sup>

The Constitutional Act was passed by the British Parliament in June of 1791, dividing the earlier province of Quebec into Upper Canada and Lower Canada. The Act came into effect on December 26 of that year and outlined the organization of these districts. It stated that “all officials would remain in office and continue their civil duties until notified otherwise”<sup>17</sup>

When the two Canadas became separate legal entities, they were directed to legislate separately as well. Each province was headed by a Lieutenant-Governor who represented the British crown. Assisting him were three groups of officials: The Legislative Council of seven or more appointees, an Executive Council composed of six members appointed for life, and a House of Assembly of land-owning members elected from each of the existing counties.

<sup>13</sup> Public Archives of Canada, 1916, Sessional Paper No. 29a, An Ordinance, 25 GEORGE III REGIS, Chap. VI, 1788

<sup>14</sup> Report --- relating to committee of Council relating to Commerce and Poince, Canadian Archives, 6-7 Edward VII, A.1907, P. 619

<sup>15</sup> Canada Archives, 1907, Documents relating to the Constitutional History of Canada – 1787 (Internet Archive P. 617 and 619)

<sup>16</sup> Acts Passed in the Parliament of Great Britain --applying to Upper Canada and of such Ordinances of the late Province of Quebec. York, 1819. - from Google Books – Internet. ALSO, Appendix to the 14<sup>th</sup> Volume of the Journals of the House of Commons, Dominion of Canada, Session of 1880

<sup>17</sup> Constitutional Act of the Province of Lower Canada, 31 Geo. III, cap 31



## CHAPTER FOUR- Lower Canada – 1792 to 1823

Soon after the Province was formed in 1792, the problems that had been discussed by the merchants were taken up by a committee of the House of Assembly. They brought their recommendations to the full House on May 4, 1795 and four resolutions were introduced. The **first** stated- “That on the present defective state of the standard weights and measures in this province it would be unsafe to found any Act thereon.” The **second** proposed “that four complete sets—be imported from London with all convenient speed; that they be all made of copper, brass or bell metal (alloy of copper and tin), and marked with the maker’s name; -stamped or sealed at His Majesty’s Exchequer, one set to be marked **PROVINCIAL STANDARD**, and the three other sets to be respectively marked **D. QUEBEC STANDARD, D. MONTREAL STANDARD, D. THREE RIVERS STANDARD.**” The **third** recommendation discussed the Paris foot and its use compared to the English foot. The **fourth** looked at the relationship of the French minot to the Winchester bushel which were considered to be almost equal. The 1 minot was equivalent to 1.087 Winchester bushels. It was also equal to 20 pots, another old French measure that was still in use in French Canada at that time.

The Committee made a list of weights and measures that were to be acquired. Avoirdupois and Troy weights were needed along with English Wine, English Ale, and Corn (or Winchester) capacity measures, each set from a half gill to a gallon. A Winchester bushel and half bushel were listed as well as brass linear measures of a foot and a yard. The list was completed with what were called “Canada Measures”, which were still being used in what had been the colony of New France. They consisted of: a Paris foot, a half minot, a minot, poisson, septier, chopine, pinte, and pot. The pinte was almost twice the capacity of the English pint. These old French measures were still in use in Quebec even though after 1799 they had been replaced by the Metric System in France. It was decided that these familiar measures could be used in the rural areas of Lower Canada. The English system was the only legal measure that could be used in the three large towns.

The House then decided that there should be three Districts and changed the wording to read as follows: “Resolved, that for the better regulation of weights and measures in this Province, it is expedient that four compleat sets of the following weights and measures be imported from London with all convenient speed; that they all be made of copper, brass or bell metal, and that such of them that are agreeable to the English standard be stamped or sealed at His Majesty’s Exchequer, one set to be marked (where it can be done conveniently) Provincial Standard, to serve as General standard for the province and the three other sets to be marked Quebec Standard, Montreal Standard, Three Rivers Standard.1795.” The rest of the recommendations were written into the Bill unchanged and so the old French measures remained as part of the required items.<sup>1</sup> At some point it was decided that the old Ale Measures were not needed, so they were left out of the order.



*Pot and Chopine, Lower Canada (after 1837), Museum of Science and Technology, Ottawa*

<sup>1</sup> Journal of the House of Assembly of Lower Canada, 5<sup>th</sup> January to 7<sup>th</sup> May 1795, pp. 289 -295.

The Provincial Statutes of Lower Canada record that on 4th of May 1795, “100 pounds, eleven shillings and one penny was to be paid out of the General Fund towards procuring Standard weights and measures from England; And a further sum not exceeding three hundred pounds -- shall be paid out of the General fund for paying the balance that might be owing on the account of said Standard Weights and Measures.”<sup>2</sup>



L.C. Standard Quart 1795



Lower Canada Gallon 1795 Museum Science and Technology

## The Lower Canada Standards from England

An entry in the Journal of the House of Assembly of Lower Canada for 28<sup>th</sup> January, 1797, stated that “the clerk had received during the previous summer, two complete sets of standard weights and measures from England, with invoices and certificates relative thereto, as also a part of a third sett lately from Montreal; imported by the Honourable Speaker of the last Assembly, pursuant to the orders and resolutions of the house passed on the 4<sup>th</sup> day of May 1795, and that the said standard weights and measures are deposited in one of the Committee Rooms of this House until further orders.”<sup>3</sup> Unfortunately, there is no explanation of why the third set was described as only a partial one.

Adam Lymburner was one of three Scots brothers who had become successful merchants in Montreal. He was well known as a skilled speaker who had a deep understanding of Constitutional law. Because of this he was chosen by his fellow British merchants in Montreal to speak in the British House of Commons to argue against the separation of Quebec into Upper and Lower Canada. On March 23<sup>rd</sup> of 1791 he “pleaded for hours before the committee of the House of Commons against the division of the province. All the English-speaking minority in what would become Lower Canada were afraid of being swamped by the French-Canadian vote and so of being hampered in liberty and trade.”<sup>4</sup>

His reputation in Montreal, as well as his temporary residency in London made him an obvious choice to represent the government in the ordering and shipping of the Standards. He must have been engaged to handle the order late in 1794 or early in the next year, since the work was completed and then stamped with the year “1795”. On Monday, May 1<sup>st</sup>, 1797, there was a discussion in the Lower Canada House about the “accounts of Adam Lymburner” who was owed money “for the purchasing of standard weights and measures for the use of this Province”.<sup>5</sup> It was agreed that “the sum of two hundred and eighty-two pounds, sixteen shillings and eleven

<sup>2</sup> Provincial Statutes of Lower Canada, Volume the First, Quebec, 1795, p. 118.

<sup>3</sup> Journal of the House of Assembly of Lower Canada, 24<sup>th</sup> January to 2<sup>nd</sup> May 17, 1797 p.37.

<sup>4</sup> The Father of British Canada: A Chronicle of Carleton by W. Wood, p.204

<sup>5</sup> Journal of the House of Assembly of Lower Canada, 24<sup>th</sup> Jan. to 2<sup>nd</sup> May 1797. P. 187

pence sterling” should be remitted to Lymburner in England. The amount seems excessive since the equivalent labour cost of the project would be over £25,590.00 in today’s currency.<sup>6</sup> The government did not show great concern.<sup>7</sup> Note that the order included three sets of measures rather than the four sets that were called for in the legislation. (See P. 17.)

Additional expenses were entered in the records of the House of Assembly. Charles Couvrette was paid 1 pound 15 shillings for cartage of the measures from Montreal to Quebec, while Forsyth Richardson and Co. charged 52 pounds 1 shilling and 4 pence for the transport of the measures from New York to Montreal.<sup>8</sup>

It was decided on the May 1<sup>st</sup>, 1797 House of Assembly session, that a fourth set of weights and measures should be obtained from London and kept at the legislature as a reference set. They had realised that such a set was needed as reference for the re-verification or repair of those used in the three towns. This set should be “stampt or sealed at His Majesty’s Exchequer, and to be marked **G.R. Lower Canada, 1795**”. The order included complete sets of Avoirdupois and Troy weights, sets of Wine and Winchester measures, plus a set of “Canada measures”, an English foot, a Paris foot (12.8 English inches) and an English yard.<sup>9</sup> This fourth set was to be kept by the Clerk of the Legislative Assembly.

The sum of sixty-six pounds, four shillings and six pence as payment for this order was to be entrusted to “a gentleman of confidence in London”. It can be assumed that this gentleman was Lymburner.<sup>10</sup> Examples from the set are presently in the Measurement Canada office in Ottawa. They are marked, almost as directed above, but as can be seen in the photo below, the year is “1796”. The maker must have decided that since they were made in 1797, a later date than 1795 was more appropriate.



Pinte, Lower Canada 1796

 A handwritten customs ledger from 1815. The top left header reads "Goods Imported from the United States as of Septemr. 1815". The table has four columns: "Articles", "Minots", "Pounds", and "Shillings". The entries are as follows:
 

Articles	Minots	Pounds	Shillings
23 Casks Tobacco Contz		94	5
100 Bauls Salt	400		
off 3 pce		12	
a Keg Tobacco			70
a Kb <sup>d</sup> Whiskey			102
		388	

Customs Ledger of 1815. “Minots” was in general use in the early 19<sup>th</sup> c.

<sup>6</sup> www.measuringworth.com

<sup>7</sup> Journal of the House of Assembly of Lower Canada, May 1st, 1797, page 193

<sup>8</sup> Ibid, p. 193

<sup>9</sup> Ibid, p. 191

<sup>10</sup> See p. 18



*Lower Canada Half Minot 1795 - Copper/Brass*



*Half Minot 1795- Copper/Brass (reverse side)*

*Photos courtesy of Museum of Science and Technology*



This 56-pound avoirdupois weight is a rare example from one of the three 1795 “working sets” acquired by Adam Lymburner. Each item from the set was checked carefully by the Exchequer in England and was “verified” to be a true copy of the original. The chequer board pattern along with the monarch’s initials certified that the item had been compared with the original at the exchequer and was therefore correct.

This example shows the wear that came from heavy use by the inspectors when they took the item out in the town to check the weights in the markets and shops.



*Museum of Science and Technology, Ottawa*

## 1795 Lower Canada Half Gallon Measure

Examples of these early measures are now extremely rare, and seldom do they appear at auction. The example shown here to the right was sold at a Sothebys Toronto Canadiana auction on October 6, 1981, lot 51. It was engraved "G.R. Lower Canada 1795". On the opposite side was "Half Gallon Winchester". The rim was marked along the top edge with four official marks. Its height was 6 inches (15.2 cm.) It sold for \$1500.



In Toronto in October of 2016 the Heffel Art Auction House offered for sale the 1795 measure shown below. Although there was no explanation of its ownership history, it appears to be the example that was sold by Sothebys in 1981. Note that the same mark appears on the bottom rim below the "95" on both illustrations of the front of the measure.



*Lower Canada Half Gallon Winchester Measure- 1795*



*Verification Marks stamped on the Rim*  
 Left – Crown over GR III      Right – London Guildhall Dagger

The fine condition and original patina helped to push the bidding to \$7000. The buyer premium of 25% brought the total cost for the buyer to \$8750. (before sales tax).

The good condition of this measure indicates that it probably was not used in any of the three districts where the weights and measures inspectors worked. They carted their equipment to the many markets and shops, but the rough roads and hard use caused minor dents and scratches on the pieces. Since this example is free of those dents and abrasions, it suggests that it was part of the fourth set that was kept in the Lower Canada Legislative Assembly building in Montreal. That building burned to the ground in April of 1849. The fourth set of measures that was housed in the building was reportedly consumed by the fire. That set had been kept there for reference in case any of the “working” district weights were damaged and had to be recalibrated. A new set was ordered immediately, however, it is not known when they arrived and whether the new ones were dated with the current date. Usually, new measures were dated and marked in the year in which they were made.

## Weights and Measures Act of 1799 - Lower Canada

In June of 1799 the House of Assembly “Resolved that the weights and measures imported for standards may be adopted with safety as the weights and measures for the Province of Lower Canada.”<sup>11</sup> This final bill, the government now having all the weights and measures thought to be necessary, was entitled “An Act for the Better Regulating of the Weights and Measures of This Province”. It was passed on 25<sup>th</sup> May 1799 in the House of Assembly and sent to the Legislative Council.<sup>12</sup> Final passage came on June 3<sup>rd</sup>, 1799. Great care was taken to cover all aspects of the new weights and measures system and so this Act was over five pages long. It contrasts with the earlier Bill in Upper Canada which was one page long and omitted some important points that caused much confusion in its implementation. (*See p. 34*)

This law listed the four sets of standards that had been obtained from London. Altogether they included - a number of small scales and balances, 4 sets of Troy weights from ¼ ounce to 4 pounds in “cup” form (*see p. 25*), 4 sets of Avoirdupois weights of 4,7,14,28 and 56 pounds; 4 sets of brass Wine measures from 1 gill to 1 gallon; 4 sets of brass Winchester measures from 1 gill to 1 gallon; 4 brass Winchester half bushels, 3 Winchester bushels; 4 sets of “Canada” brass measures from a Poisson and a Pinte to a Pot, 4 half Minots in brass, 3 Minots in brass.

A set was allotted to each of Montreal, Quebec and Three Rivers while the fourth set was to remain in the custody of the Clerk of the Legislative Assembly so that, when necessary, any of the three sets in the hands of the inspectors could be tested against the “true” measures held by the clerk.<sup>13</sup> That fourth set was destroyed when the Parliament Buildings in Montreal burned in April 1840. It was replaced in 1846 at a cost of 136 pounds 10 shillings and 5 pence.<sup>14</sup> Interestingly, it was estimated by a House committee in the previous year to be a cost of 185 pounds. A contrary set of figures is contained in an 1847 report on “Revenue and Expenditure”. A chart shows purchases of Standard Weights and Measures in three successive years. In 1795 and 1796, 100 pounds was spent each year, while in 1797 the cost was stated as 349 pounds.<sup>15</sup>

The Act does not specify that an “Inspector” was to be appointed. It states only, “such fit person as shall be appointed shall take an Oath” and “every person appointed to regulate Weights and Measures--”. The job was to inspect all merchants’ weights and measures in the towns and villages and the markets in the districts around those towns and adjust all weights and scales to

<sup>11</sup> Journal of the House of Assembly, 1799, P.118

<sup>12</sup> Provincial Statutes of Lower Canada, 39 Geo 3, Cap VII, p 80

<sup>13</sup> *Ibid* p.80

<sup>14</sup> 8 Victoria, 1845 Appendix (QQ), Estimate of Certain Expenses of the Civil Govt. AND - 10 Vic., Appendix A,1847, No. 17, Statement of Warrants Issued on the Receiver General of the Province of Canada

<sup>15</sup> Annual revenue and Expenditure of Lower Canada, Montreal, Lovell and Gibson, Montreal, 1847

ensure that they gave correct weight. He was also obliged to check all measures to ensure that their capacity was true. If all were correct he was instructed to stamp the item with **VR over Q** if in the Quebec City area, **VR over M** in Montreal or **VR over R** in Three Rivers.<sup>16</sup>

The inspector was allowed to charge a fee which varied from one to five pence according to the complexity of the inspection.<sup>17</sup> Two troy weights and four measures with the Montreal mark are known to exist and are illustrated on these pages. No examples of marks from Quebec City or Three Rivers seem to have survived. More inspection districts were instituted as populations increased in the areas beyond the initial three. The District of Gaspé, for example, appointed an inspector in 1842.<sup>18</sup>

The marking system instituted in 1799 continued until 1849 when the instructions to the inspectors were changed. After that time, they were instructed “to mark, stamp or brand the same (if a measure) as near the two ends, or top and bottom as may be, **G.IV.R.**”<sup>19</sup>

The examples shown on these pages have **VR over M**, with no marks at the bottom. Victoria ascended to the throne in 1837 so these measures must date to between 1837 and 1849.



*Measure - Stamped - VR over M* Museum Science and Technology



*Example of a “Haystack” Gallon Measure, the Rim Stamped with the Mark for Montreal*

<sup>16</sup> Provincial Statutes, Anno tricesimo nono Georgii. III p. 84

<sup>17</sup> Ibid p.86

<sup>18</sup> General Index of the Journals of the Legislative Assembly 1841-1851, by Alfred Todd, Montreal, 1855

<sup>19</sup> Statutes of Lower Canada, Cap. 54, 30<sup>th</sup> May., 1849 p. 345



*Lower Canada Gallon– Hand stamped lettering. Montreal mark. Private collection*

The Winchester measure shown above is currently in a Massachusetts collection. There is no mark that would identify the maker. It has hand-stamped lettering of V(R)? over M. These stamped letters identify it as being used in the Montreal Inspector's region at some time during Queen Victoria's reign which began in 1837. The law that required that type of stamp was changed in 1849 (*see p.89*) to a new one that specified new positions for the inspector's mark.<sup>20</sup> After 1849, the mark was to be struck twice on the working measure, once close to the top and the other near the base. It follows the procedure that was used in Upper Canada.

This adds to the mystery that surrounds these Lower Canada measures from 1837 to the 1860-time period. It is not known who the makers were and why there was such a variety in the construction of the three examples that we have seen.

## Troy Weight System

Troy weights were included as part of the measures ordered by the Lower Canada Legislature from Britain in 1795-6. Upper Canada, however did not include them in their list of measures needed for their inspectors.

The Troy, or Bullion weight system, was used in Britain from medieval times until the end of the 19th century. It was a system used by jewelers and goldsmiths for weighing precious metals, gems and coins. Bullion is a term that is still applied to larger quantities of gold or silver. This system is little used in the 21<sup>st</sup> century, having been abolished from official use in Britain in 1879. The present day official troy ounce is equal to 31.1034768 grams, or 1.0971 ounces. Gold and silver are still weighed using the Troy system.

Most coins in the 18<sup>th</sup> and 19th century were made of gold or silver. A practice called "clipping" became a common problem. Some people found that a small portion of the coin could be shaved off and the clippings melted down and sold for a tidy profit. That meant that the value of the clipped coin was somewhat less than the face value. Special pocket-sized scales were produced to check

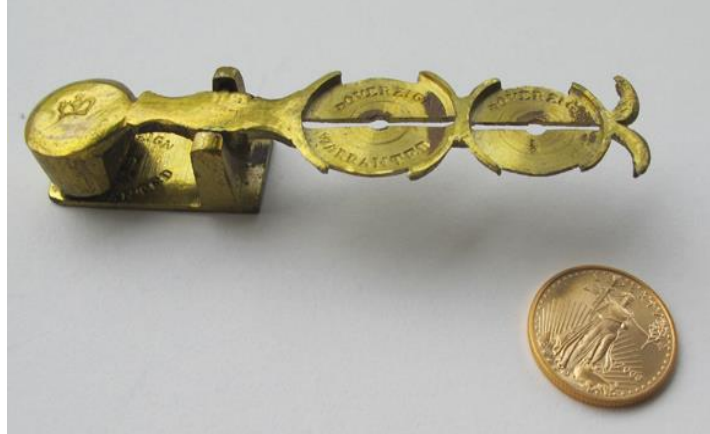
<sup>20</sup> Provincial Statutes, 12 Vic., 1849, Chap 54, P. 344 to 346



the weight of coins in Troy grains or ounces. If the coin's weight was less than the proper weight the recipient would refuse to accept the clipped coin in change.



Coin Balance Scales c. 1780



Pocket Coin or Sovereign Scale c. 1840

E. Little Collection

Sets of cup-shaped nested weights that measured  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1, 2, 4, 8, 16, 32 and 64 Troy ounces were made for goldsmiths and silversmiths. Men who bought larger quantities of these metals used weights like the 7 and 28-pound Troy weights shown here and on page 26.



Troy Cup Weights, 1796



Museum of Science and Technology

This is one of the four sets of Troy weights that were supplied to Lower Canada in 1796. Note the GR III and the chequerboard marks that certify that the weights had been checked for accuracy

This 7-lb weight (shown below), although it is not stamped as such, is a Victorian Troy bullion weight. William Chaffers in his 1891 book "Hall Marks on Gold and Silver Plate"<sup>21</sup> shows the "j" shown here to be the symbol for an assayer's hundredweight. Since there are seven of these marks they appear to support this conclusion. Seven pounds Troy would amount to 2611 grams, whereas a regular avoirdupois seven-pound weight would be 3178 grams. This piece was made after 1837 when Victoria became Queen. There is no proof, however, that it is Canadian.



Museum of Science and Technology

There is no indication in the Upper Canada Statute of 1823 that a set of Troy weights was to be included in the "Set of Weights and Measures according to the Standard of His Majesty's Exchequer in England".<sup>22</sup> None, therefore, were included in the order.

<sup>21</sup> William Chaffers, P. 66, Hall Marks on Gold and Silver Plate, Publ. by Reeves and Turner, 196 Strand, 1891

<sup>22</sup> [https://en.wikipedia.org/wiki/troy\\_weight](https://en.wikipedia.org/wiki/troy_weight)

Only Lower Canada had official Troy standards. They were included in the 1795 order from England and came as “cup weights” as well as the larger bell weights shown here.

In 1879 the Troy Pound was abolished in Britain and only the ounces were retained for use by jewelers and national mints.<sup>23</sup> The example below and left shows that there were Troy weights



used by inspectors in Lower Canada. The VR over M was designated to be the mark used by the inspectors of weights in the Montreal area. This weight is from the 1837-1860 period. A new stamp was introduced in 1861 so that the “M” was not used after that date to designate Montreal.



*Museum of Science and Technology*

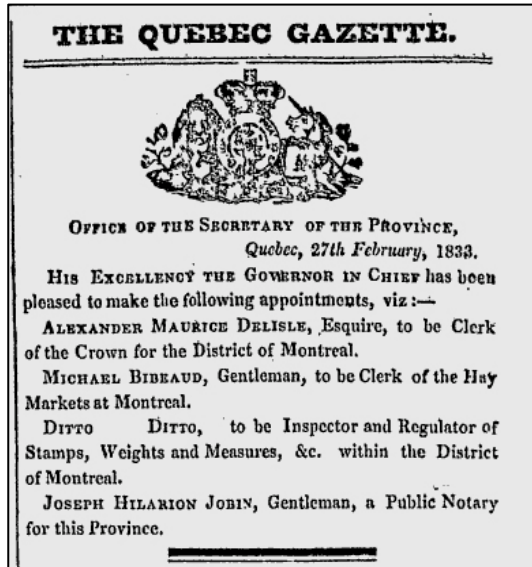
This example might have been part of one of the sets of measures produced by St. Amant in 1860.

Britain introduced the Imperial system of weights and measures in 1824, however it took two years before the transition was completed so the real introduction was in 1826.<sup>24</sup> Canada was enjoying increased trade with the U.S., so they opted to keep the Winchester/ Wine system which was still used in the United States. Canada moved to Imperial measures in 1875-6.

<sup>23</sup> [https://en.wikipedia.org/wiki/troy\\_weight](https://en.wikipedia.org/wiki/troy_weight)

<sup>24</sup> <https://en.wikipedia.org/wiki/imperialunits>

## Markets in French Canada - 18<sup>th</sup> to 19<sup>th</sup> Century



Markets were established in Lower Canada in the early 18<sup>th</sup> century. Market regulations of 1765 ordered the clerk to “examine all weights and measures and to report all frauds.”<sup>25</sup> By the next century the “Clerk of the Market” controlled all aspects of the operations. He tended to all scales including the hay scales, inspected and stamped weights and measures of the vendors and charged a fee for doing so.<sup>26</sup>

The system changed with the introduction of the 1799 law so that in the 19<sup>th</sup> century the measures inspections were controlled by the Legislature. The three large towns and their hinterlands had the main inspection districts, Quebec City, Montreal and Three Rivers. An entry in the Journal of the House of Assembly on January 10, 1821 records that George Chapman, the clerk of the market in Quebec City was also “a duly qualified regulator and Stamper of Beams,

Scales, Weights and Measures by Commission bearing the date the second day of December, one thousand eight hundred and six, for the city and district of Quebec --and having in his charge the public Beams, Scales, Weights and Measures”.<sup>27</sup> Chapman was also responsible for the inspection of markets in the towns around the city of Quebec. This practice continued into the 1830’s as shown by a notice in the Quebec Gazette of February 1833 that named “Michael Bibeaud to be Clerk of the Hay Markets at Montreal, and to be Inspector and Regulator of Stamps, Weights and Measures, &c. within the District of Montreal”<sup>28</sup>

The “Act of Union” in 1841 (*See Chapter 10*) created a united government of the two Canadas. The weights and measures programs however, continued separately in each of the two provinces until 1849. As the population of Lower Canada grew, the measures inspectors in the original three divisions of Lower Canada found that there was more work than they could handle. The legislature recognised that more inspectors were needed and observed that Revenue Inspectors were spread out through more territories and would be able to take on that job. In 1849 the Act of 12 Victoria, Chap 53-54 stated that inspections were to be transferred to those Revenue Officers. The Clerk of the Assembly of Lower Canada had custody of the standard Weights and Measures, so if any of the equipment was missing or broken, the Governor of the Province “may cause others to be imported or procured at the public cost”.

The inspector was to “compare all items brought to him to examine and to stamp (if a measure), as near the two ends, top and bottom, as may be, with the stamp or brand to be provided for that purpose”. This was in line with the procedure in Upper Canada. The fee structure was simplified as well, specifying a charge by the inspector of six pence for each weight or scale and 4 pence for each measure.<sup>29</sup> Canada East, as Quebec came to be called, retained this system of inspection until the introduction of Imperial measure in 1875. However, in 1853 the municipalities throughout Canada West were authorised to take over the inspection system in which counties or large towns were able to appoint their own inspectors.<sup>30</sup>

<sup>25</sup> Magistrates, Police and People, Donald Fyson, University of Toronto Press, p 24

<sup>26</sup> Appendix (L), 28<sup>th</sup> Volume, Journals of House of Assembly - Province of Lower Canada, 3<sup>rd</sup> Session, 9<sup>th</sup> Parliament.

<sup>27</sup> Journals – House of Assembly of Lower Canada, 14<sup>th</sup> Dec. 1820 to 17<sup>th</sup> Mar. 1821, Page 80

<sup>28</sup> The Quebec Gazette, Feb. 28, 1833, p. 3

<sup>29</sup> Provincial Statutes, 12 Vic., 1849, Chap 54, P. 344 to 346

<sup>30</sup> Lower Canada, Consolidated Statutes, 1861, Chap. 62

## O. St. Amant Measures

These Lower Canada measures are stamped 1860 and are marked by a maker named O. St. Amant. They and their maker are a mystery since there is no legislation that has been found that mentions this name nor are there records that document their purchase from such a person. Records from the Standards Department of Inland Revenue show that 20 sets of new Standards were verified in 1860, 22 in 1861 and 20 again in 1862.<sup>31</sup> Over ten thousand measures and weights were added in the next 13 years! A few years earlier there had been only three sets needed in the whole province. The population of Lower Canada had increased to the point that the measures inspectors were unable to handle the volume of work. Revenue Inspectors, who were already working in the area were assigned the additional job of inspecting weights and measures. The 1849 law stated that each Revenue Inspector “should be supplied with copies of the said standards made at public cost.”<sup>32</sup> This was a just a few years before Confederation and the discussion about introducing Imperial measures had just begun. It is difficult to understand why changes to the weights and measures procedures would have been initiated until those discussions were complete. A very large amount of money appears to have been spent on measures that were soon to become unnecessary!

There were families in Lower Canada who had the Amant name and initial “O”, but none are known to have had any connection to the Quebec foundry industry. One possibility is a “Mecanicien, Engineer”, named Onesime St. Amant listed in a Quebec City almanac of 1886.<sup>33</sup> However, no further information about him has been found.

There is a foundry in France with the St. Amant name,<sup>34</sup> but the references to it indicate that the enterprise began by casting cannons for Napoleon. The firm worked on well into the early 20<sup>th</sup> century and apparently continued producing munitions, however, there is no evidence that this firm made smaller items. There are some old industrial towns in France named St. Amant, but none have any connection to foundries.

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<sup>31</sup> Canada Dept. of Inland Revenue, 1874, Finance, - Report, Returns and Statistics of Inland Revenue, Dominion of Canada- Part Two, Appendix III

<sup>32</sup> Provincial Statutes, 12 Vic., 1849, Chap 54

<sup>33</sup> Almanac des Adresses Cherrier de la Ville de Quebec --1886

<sup>34</sup> Fonderie de Ruelle, Wikipedia



*Winchester Gallon, 1860*



*"O. St. Amant" stamped on the base*



*Wine Quart- engraved with V.R. and L.C. 1960 Private Collection*

The chart shown below was published by the Department of Inland Revenue, titled “ **Number of Local Standards of Weights and Measures officially verified in each Year since 31<sup>st</sup> March 1859**”. It shows that in the years 1860 to 1873 there were 8,443 new avoirdupois weights, 1196 new capacity measures and 257 new sets of standards. These numbers seem excessive but cannot be challenged as incorrect because they came from the Federal government department that oversaw weights and measures.

The St. Amant company provided most of the measures that we have seen from that period, so that company must have prospered greatly. <sup>35</sup>

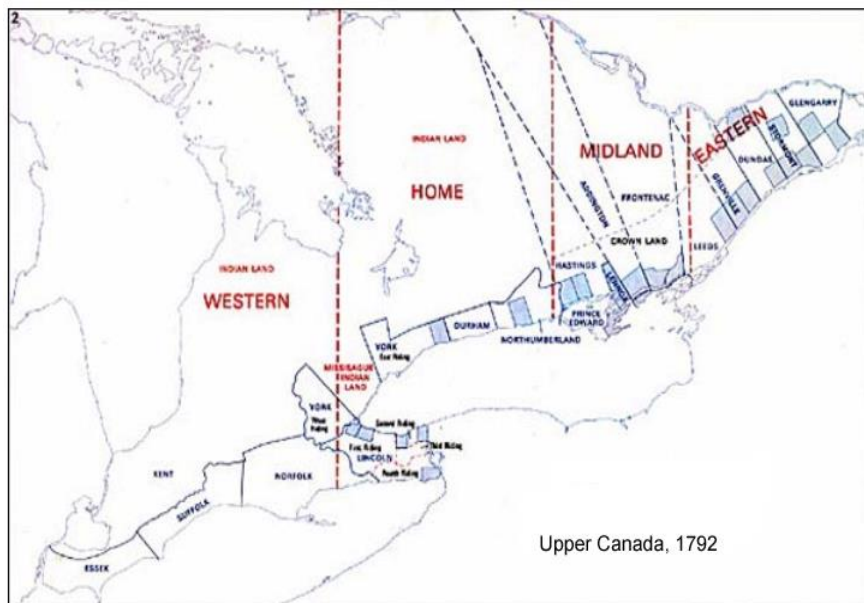
Number of Standards verified for the First Time.

In the Year ending 31st March.	Avoirdupois Weights.	Troy Weights.	Measures of Capacity.	Measures of Length.	Bullion Weights.	Total Number of Standards, excluding the Measures.	Number of new Sets of Standards, and of corresponding new Identifiers.	Gas Measures.
10 1860 -	795	60	144	15	—	1,014	26	—
11 61 -	539	15	67	9	27	657	23	—
12 62 -	652	34	149	16	—	851	20	112
13 63 -	564	1	127	10	30	732	23	40
14 64 -	519	10	62	6	30	617	17	—
15 65 -	430	39	31	2	20	546	12	—
16 66 -	507	—	8	9	50	574	15	1
17 67 -	561	25	90	14	—	700	17	5
18 68 -	750	10	34	2	—	796	13	2
19 69 -	690	40	37	4	85	856	10	3
20 70 -	559	60	78	10	22	729	23	5
21 71 -	735	24	39	2	112	982	41	4
22 72 -	410	33	156	4	30	633	7	—
23 73 -	532	45	181	4	30	822	17	2
Total -	8,443	467	1,196	107	505	10,719	257	171

<sup>35</sup> Canada Department of Inland Revenue - 1874 - Report, Returns and Statistics of the Inland Revenue part 2 Appendix III

## CHAPTER FIVE- Upper Canada – 1783 to 1791

A flood of loyalists began arriving in the 1780s from the new American republic into the western areas of what was then the Province of Quebec. These new lands were surveyed, and a township system was instituted. Four new districts were established by the proclamation of Lord Dorchester in 1788<sup>1</sup> and were named in honour of the British royal family whose ancestors were



members of the German aristocracy. Hesse, Lunenburg, Mecklenburg, and Nassau were the names given to those new districts that were quickly being settled. The area was then renamed Upper Canada and is now southern Ontario.

In 1792 these districts were renamed Eastern, Midland, Home and Western. They were then sub-divided into counties as shown on the accompanying map.

A new law was then passed, which set up the government of these districts.<sup>2</sup>

### District Government

#### Courts of Quarter Sessions of the Peace

In 1791, a form of municipal government was organised in each of the four districts. This system had its origin in Britain where panels of locally appointed judges presided over almost all aspects of local municipal life. In Upper Canada, prominent local men were appointed to this court, in most cases by the powerful Family Compact. It was aptly named because of the four meetings that were held each year for the obvious purpose of keeping the peace in the local communities. It was well suited to the colonies and was part of all British settlements that progressed beyond military governments.

The Quarter Sessions oversaw the administration of the district, dealt with legal cases and conducted trials of people who had committed misdemeanours. The justices were given the authority to appoint property assessors, market clerks and census takers, to maintain the peace, control wandering livestock, award tavern licenses, lay out roads, oversee the heights of fences and appoint minor officials such as road inspectors and fence examiners. They issued licenses for taverns, oversaw the town markets (including the inspection of weights and measures used there), and were general “keepers of the peace”<sup>3</sup>

Governor Simcoe, along with most members of the British Parliament held the belief that a hereditary, well-educated upper-class group should govern Canada. Most of the men that Simcoe appointed were members of the British aristocracy. Political opponents called them the Family Compact because of their very close associations with one another. Simcoe maintained this rigid class structure by the way he ran the colonial government. He appointed two governing bodies. The most important one was an appointed group chosen by Simcoe, called the **Legislative**

<sup>1</sup> History of the Settlement of Upper Canada, William Canniff, 1869, Online at Google Books, p 506

<sup>2</sup> Op. cit. p. 506 -- Also-- (Act of Parliament (1791), 31 Geo. III, cap. 3

<sup>3</sup> Act of Parliament (1793), 33 Geo. III, Cap. 2

**Council** which held the real power. He allowed an elected **House of Assembly**, which consisted of members chosen by voters who owned land in each of the counties. There was also the **Executive Council** which was composed of six appointed members and who were the Governor's close advisors. Only male landowners were given voting rights whereas women and the large number of laborers and farm workers were excluded. The Assembly was able to offer advice to the two Councils and to the Governor, but any legislation written by the Assembly had to be "sent up" to the Legislative Council for approval, thus ensuring that the elites were able to keep control. This system of government remained in effect until 1849.

## The Districts

As the numbers of immigrants increased, populations of the original districts expanded beyond the margins of the large lakes and rivers where the first settlers lived. As Upper Canada grew, the original four districts were broken up into new areas.<sup>4</sup> By 1838 twenty Districts had been formed. The changes are shown in the chart below.

Lunenburg District 1788–1792 - sat at New Johnstown (present day Cornwall)

Eastern District, 1792–1849

Johnstown District, 1798–1849 - from Eastern District

Ottawa District, 1816 – 1849 - from Eastern District

Bathurst District, 1822–1849 - from Johnstown District

Dalhousie District, 1838–1849 – from Bathurst District

Mecklenburg District 1788–1792 - sat at Kingston

Midland District, 1792–1849

Prince Edward District, 1831 - 1849

Victoria District, 1837 - 1849

Colborne District, 1838 - 1850

Nassau District 1788–1792 - sat at Newark (Niagara-on-the-Lake) and later at York

Home District -1792–1849

Niagara District, 1798–1849

Newcastle District – 1798 - 1849

Gore District, 1816–1849

Simcoe District, 1837

Wellington District, 1838–1849

Hesse District 1788–1792 - sat at Detroit, then Sandwich (now Windsor)

Western District, 1792–1849

London District, 1798–1849

Brock District **and** Talbot District, 1837–1849

Huron District, 1838–1849

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<sup>4</sup> The Districts of Upper Canada, George Spragge, Ontario History, 1947, Google Books



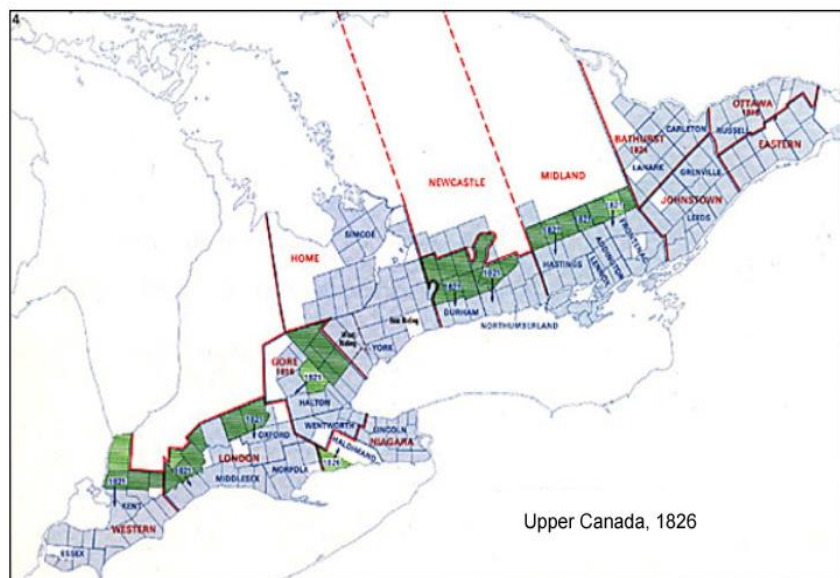
## Weights and Measures Legislation – 1792

“An Act to Establish the Winchester Measure, and a Standard for other Weights and Measures throughout this Province” was passed in the first Parliament of Upper Canada, headed by John Graves Simcoe in 1792. It stated that on May 1, 1793, weights and measures would be “according to the Standard of His Majesty’s Exchequer in England”. Any offence against this new law, as determined by “any two Justices of the Peace”, would bring a fine of “Two Pounds, Quebec Currency”.<sup>5</sup> It was also stated that “there shall be certain judicious persons to be appointed by the Magistrates in Quarter Sessions” in each district “to ascertain the bushel, half bushel or other measure and who shall mark and seal such bushel with the stamp G. III. R.” Penalties would be levied against anyone who used unmarked measures.<sup>6</sup>

The procedure for writing and then enacting such laws as this was a process that took several weeks. The lower body, the House of Assembly, was elected but was subservient to the appointed Legislative Council. All legislation began in a committee of the House, where the details were decided upon and written into legal form. This stage of the Act was introduced in the House of Assembly on September 26th in 1792. Members were able to read the bill and suggest changes. It had its first reading on the 28th, the second on the 29th and the third on October 1. It was then sent up to the Legislative Council where it was read the same day. The second reading in the Council was on the following day after which it was sent to a committee for study. On October 3 the committee agreed to some amendments. They gave the amended bill a third reading on the 4th after which it was agreed to by the Council members. The following day, Oct. 5, they sent the bill back to the House of Assembly where it was agreed to and was then promptly returned to the Council on the 8th.

Other business kept the two houses occupied until the 15th when Governor Simcoe attended the meeting of both houses. On that day he formally passed a number of Acts, the Weights and Measures bill being one of them.<sup>7</sup>

Another law that was also passed that day in 1792 was the decision to change the names of the four Districts. They became Eastern, Midland, Home, and Western Districts.<sup>8</sup>



Six years later, because of the great influx of immigrants from the U.S. and Europe (mainly Britain), the earlier districts were split into four new ones making eight in total. These were Johnstown, Newcastle, Niagara and London. As the flow of immigrants increased, it was necessary to divide the districts further. Ottawa and Gore were created in 1816, and Bathurst in 1822. Thus, by 1823 and the passage of the next act concerning weights and measures, there were 11 districts.

<sup>5</sup> First Parliament, Chap. 2&3, 32 Geo. III, 1792, CAP.III p.5

<sup>6</sup> Ibid p.6

<sup>7</sup> 7<sup>th</sup> Report Bureau of Archives of Ontario, 1910, (Journal of Legislative Council for 1792), pp 6-10 (32 Geo III, c8)

<sup>8</sup> Ibid, Spragge, P. 38

# Simcoe's Weights & Measures Legislation

First Parliament, Chap. 2.3. in the 32d Year of GEORGE III A.D. 1792

## C H A P. III.

**An Act to Establish the WINCHESTER MEASURE, and a Standard for other Weights and Measures throughout this Province.**

**W**HEREAS, an uniformity of Weights and Measures is much desired in this Province, Be it enacted by the King's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and Assembly of the Province of Upper-Canada, constituted and assembled by virtue of and under the authority of an Act passed in the Parliament of Great-Britain, intituled, "An Act to repeal certain parts of an Act passed in the fourteenth year of His Majesty's Reign, intituled, "An Act for making more effectual provision for the Government of the Province of Quebec, in North America, and to make further provision for the Government of the said Province," and by the authority of the same, That from and after the First day of May, in the year of our Lord one thousand seven hundred and ninety-three, there shall be one just Beam or Balance, one certain Weight and Measure, and one Yard, according to the Standard of His Majesty's Exchequer in England, used throughout this Province; and whoever shall keep any other Weight, Measure or Yard, whereby any Corn, Grain, or other thing is bought or sold, shall forfeit for every offence Two Pounds, Quebec Currency, being thereof convicted before any two Justices of the Peace, to be levied by distress and sale of the offender's goods, one half of which penalty shall be paid to the informer or informers, and the other half to His Majesty, his Heirs and Successors, for the public use of the said Province, and towards the support of the Government thereof.

II. *And be it further enacted by the authority aforesaid,* That from and after the day above-mentioned, there shall be appointed certain judicious persons in every District throughout this Province, by the Magistrates in Quarter Sessions assembled, in and for such District, to ascertain the bushel, half bushel, or other measure by which Grain or other dry articles shall be bought or sold, and who shall mark and seal such bushel, half bushel, or other measure, with the letters and figures G. III. B. and receive for the same the sum of four pence Quebec Currency, without which letters and figures, no measure for Grain or other dry articles shall be used for the purposes aforesaid, under the penalty above-mentioned.

III. *Provided always,* That this Act, and the provisions and penalties therein contained, shall not extend, or be construed to extend to the Western District, in this Province, until the twenty-fifth day of October, which will be in the year of our Lord one thousand seven hundred and ninety-three.

## Instituting the Act - 1792 to 1823

The Act decreed that the British Wine and Winchester system would be used in Canada. It also implied that inspectors would be appointed and seemed to suggest that “standards” would be used in each of the districts. The inspectors were to ensure that honest weights and measures were used throughout their districts.

However, a careful reading of the Act of 1792 shows that it was not a well-conceived document. The references relate only to dry (or corn) measure with only an oblique reference to liquid measures. Several poorly worded sections caused misconceptions and errors of interpretation. The wording “there shall be appointed certain judicious persons in every district” is poorly stated! It was intended to mean that a capable person was to act as an inspector of the measuring devices that were to be used in the district. Some magistrates concluded that this person was also responsible for acquiring the measures referred to in the Act. Others chose several men to be inspectors, probably because of the use of the plural “judicious persons”.

It was considered by many that “to ascertain the bushel, half bushel or other measure by which Grain or other dry items may be bought or sold” meant that the inspector himself was to determine the material from which those measures were to be made. Most District officials therefore decided that wooden examples could be used for the inspector’s dry (or Winchester) measures. However wooden measures were likely to warp and shrink over time, making them inaccurate and useless for their intended purpose. This custom of using wooden “official” measures at the local level, however, was true for most European countries, proven by the many examples that are found in museums there. The tradition was continued in England until at least 1876 as shown by an Order-in-Council of that year where the three larger dry measures could be made of “oak, elm, or ash, with iron rim”.<sup>9</sup> The working measures used in the mills and on farmsteads in early Canada were made of local hardwoods.

The Act does not specify that there were to be official standards brought from Britain. There is no record that the government of Upper Canada ordered Standards from England at this time even though the Act stated- “according to the Standard of His Majesty’s Exchequer in England”. Neither is there evidence that any Districts of that time copied any official standards in order to make working measures for their inspectors. Upper Canada standards dated 1792 have not been found in any collections. It is probable that metal measures were used in everyday trade and were imported from England or were made by the many tinsmiths and coppersmiths who had shops in the larger towns in Canada.

An entry made in the accounts of the Legislative Assembly shows that in “1834, old Weights and Measures”<sup>10</sup> were sold for 60 pounds and 10 shillings. No records have been found that indicate to what measures this notation refers. The assumption must be that they were from an earlier period and were dispersed after new ones arrived in 1826.

Although the Act did not specify it to be so, the tradition had been that the inspector was to have the authority to enter a business establishment to check the measuring equipment. In practice however, it was much more convenient to have the merchants bring the scales, weights or measures to him. Since the merchant could face heavy fines for “unjust” measures, it was in his interest to get the equipment verified and so the owners were forced to take their equipment to the inspector. Items that were not correct could be adjusted if the outage was small, otherwise they would be confiscated and broken up, especially if the item had been made to deceive the customer.

<sup>9</sup> Acts of the Parliament of the United Kingdom, 27<sup>th</sup>, 38<sup>th</sup>, and 39<sup>th</sup> years of the reign of Queen Victoria, p. xcvi (also liii), Ottawa, Printed by Brown Chamberlain, 1876

<sup>10</sup> General Statement of the Annual Revenue and Expenditure of the late Province of Upper Canada, 11 Victoriae Appendix (K.K.K.) A. 1847

# Districts -1794 to 1820

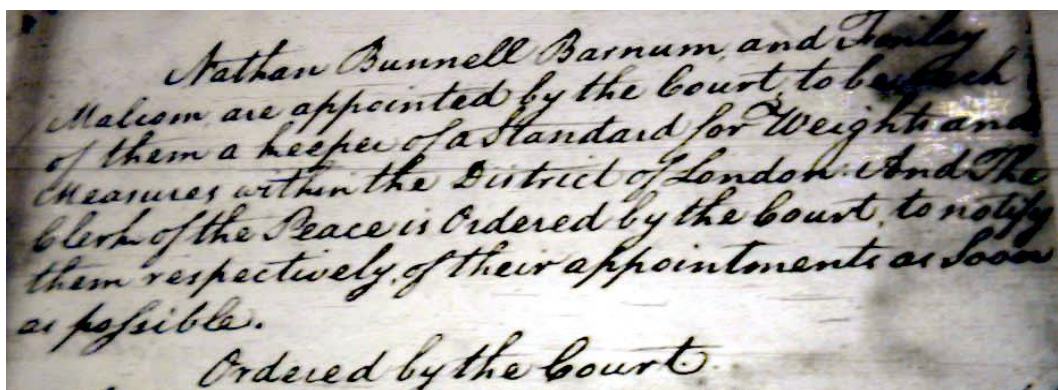
It is unclear about the origin of the inspectors' standards that were mentioned in a number of the District records of that time that are shown below. Information concerning weights and measures from this period of Upper Canada's history is sparse.

## Lunenburg District - 1794

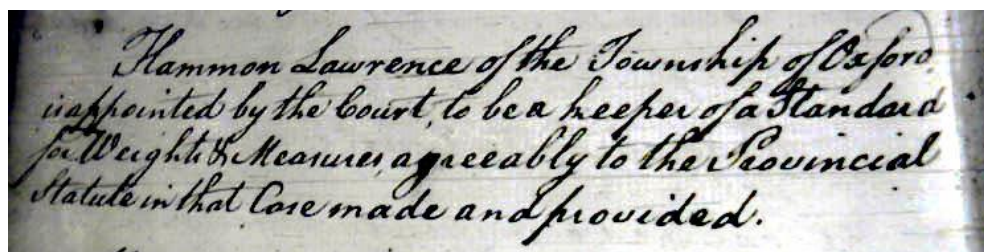
Court records show that in April of 1794, Alexander McLean was appointed sealer of weights and measures while three other men were made "sealers of weights and measures for their respective counties".<sup>11</sup>

## London District - 1798

London District records indicate that local standards were ready for use by inspectors early in 1800, the District having been formed in 1798. The following entry in the April 12<sup>th</sup>, 1800 minutes of the London District Quarter Sessions states, "Nathan Bunnell Barnum and Finlay Malcolm are appointed by the Court to be, each of them a keeper of a Standard for Weights and Measures within the District of London".<sup>12</sup>



London District Council Minutes – April 12, 1800



London District Council Minutes – July 9, 1800

This shows that the London District had obtained at least two proper sets of inspector's weights and measures at that time, since the two "keepers" were appointed early in 1800. That evidence proves that there were official standards available. There is a possibility that the necessary copies could have been made in Montreal or Quebec City, because both of those towns had coppersmiths working at that time who might have used earlier standards to verify the exact size and weight. The "Directory for the City and Suburbs of Quebec"<sup>13</sup> for 1790, lists a coppersmith, a

<sup>11</sup> Lunenburg or the Old Eastern District, by J.F. Pringle, Publ. by Standard Printing House, Cornwall, 1890, P. 56

<sup>12</sup> London District Minutes of the Quarter Sessions- 1800-1809, R971.326 LON (London Public Library)

<sup>13</sup> Directory for the City and Suburbs of Quebec, Quebec: Herald Printing Office, 1790, Library and Archives Canada, www.collectionscanada.gc.ca

brazier, a whitesmith, two armourers, and three gunsmiths in the city, all of whom could have produced accurate copies of the various weights and measures needed.

It is more likely that copies were made by craftsmen in England using the British Standards for reference. Those measures could have been shipped directly to the Districts who could have ordered them through agents in Montreal.

## Home District – Town of York

A document dated 30th June 1798 and signed by Peter Russell, the Receiver General in York, stated; “Paid to Mr. John Gray of Montreal for a pair of Money Scales and Weights to Weigh Gold in bulk, agreeable to the statute as per voucher.”<sup>14</sup> This was a curious order because there is nothing in the Act that specifies that such gold scales were necessary. However, it is likely that the scales were ordered for the use of a Customs office in York. The “statute” that is referenced in this document has not been found.



*York Village Viewed from East of Fort York – St. James Church in the Distance - 1804*

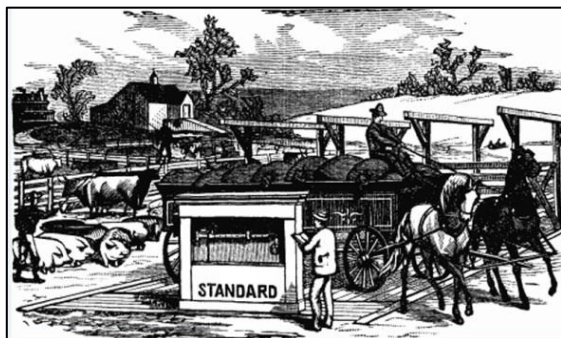
The first mention of measures in the Town of York is found in minutes of the Quarter Sessions of the Peace, Home District, on October 17, 1801. “Ordered, that Mr. Elisha Beman, of the Town of York & Mr. Stillwell Wilson of Yonge Street be commissioners, or persons, to ascertain the Bushel, half Bushel, or other measures by which grain or other dry Articles, shall be bought or sold in said District and who shall mark and seal such Bushel, Half Bushel or other Measure, agreeably to the Act in such Case made and provided.” Most of these words were copied directly from the text of the 1792 act.<sup>15</sup> We can assume that the District somehow received a set of

<sup>14</sup> Archives Canada, RG 5 A 1, vol. 67 (35451)

<sup>15</sup> Twenty-First Report, Archives of Ontario, 1932, Minutes, Court of Quarter Sessions – Home Dist., Oct. 17, 1801 p 64

standards that could be used by the inspectors - if the phrase “made and provided” means that the measures had been constructed and provided to the District.

An important aspect of local farm trade was the buying and selling of large lots of straw, hay and other farm crops. The easiest way of determining a fair price was to sell by weight.



*Hay Scales Showing Wagon Being Weighed*



*Many Weights Were Needed to Weigh Large Loads  
These are Hundredweights (112 pounds each)*

Large platform scales, also known as wagon scales or weigh bridges, were purchased from manufacturers in Britain or the U.S. They consisted of a large platform which was connected to a weighing mechanism that was a larger version of a common balance scale. They were known by local custom in Canada as hay scales or market scales.



*56 Pound Scale Weight*



*112 Pound Scale Weights*

Weights that were to be used with them were fifty-six and one hundred and twelve-pound units (the old hundredweight) of cast iron. The wagon load of farm product was driven onto the platform and the weigh master then balanced the wagon load with the addition of weights until equilibrium was achieved. To determine the weight of the load, the weigh master then subtracted the weight of the wagon (tare weight) which had been previously recorded. Such scales were a common feature in the towns throughout rural Canada up until the early 1900s.

The first mention of a Weigh Scale in York is found in an order of the Quarter Sessions of the Peace, Home District, July 15, 1807. It said “Recommended that it is expedient a Scale or weighing House be erected for weighing loads of Hay brought for sale into the Town of York. That Mr. Thomas Hamilton of the Town of York is considered to be a fit person to superintend such Weigh House, and should he think proper to erect such a One, that he be authorized to Demand and receive the sum of One Shilling and three pence Province Currency, that he shall weigh thereat and no more. That the said Thomas Hamilton be Clerk of the Weights and Measures in

and for the Home District, and that he be authorized to take and receive the Fees authorized by the Act (4 pence Quebec Currency) and in that case made and provided.”<sup>16</sup>

It appears that Mr. Hamilton did not become superintendent of the weigh house, nor did he build one. An entry in the Market Rules of 1815 indicates that the hay scales were not yet installed.<sup>17</sup> It can be assumed that he was of high standing in York since the justices were confident that he had the means to finance the Weigh House. His importance is confirmed by a reference six years later, that in 1813, he was listed as a captain in the militia at the Capitulation of York, along with other members of the ruling group who eventually became known as the Family Compact. (William Allan, Duncan Cameron, William Jarvis were influential leaders)<sup>18</sup>

It is not known how long he remained “Clerk of the Weights and Measures” for the Home District. There are other men shown in the records of the Court who were appointed market Clerk soon after 1807. He did go on to other enterprises, however, as an entry in Edith Firth’s book indicates that Thomas Hamilton was Coroner of the Home District and later became Deputy Sheriff.<sup>19</sup>

## Newcastle District (1798)

A reference to measures is found in the minutes of the Quarter Sessions in January 1805. “Ordered by the Magistrates in General Quarter Sessions Assembled, that the following persons be appointed to seal and mark all measures in the District of Newcastle” There follows a list of seven men, one from each county in the district. This is an error, possibly due to a misreading of the Act.<sup>20</sup> (See page 33, paragraph 2)

## London District (1798)

The London District was formed in 1798, and included Middlesex, Norfolk and Oxford counties, the district town being Charlotteville. Soon after, the town of Woodhouse became the district seat. By April 12, 1800 the following was recorded in the minutes of the Quarter Sessions. “Nathan Bunnell Barnum and Finlay Malcolm, are appointed by the Court to be, each of them, a keeper of a Standard for Weights and Measures within the District of London: And the Clerk of the Peace is Ordered by the Court to notify them respectively, of their appointments as Soon as possible”<sup>21</sup> Neither of them asked for the job and had to be informed by the Clerk!

On July 9<sup>th</sup>, 1800 the following was entered in the minutes of the Quarter Sessions. “Hammon Lawrence of the Township of Oxford is appointed by the Court to be a keeper of a Standard for Weights & Measures, agreeably to the Provincial Statute in that Case made and provided.”<sup>22</sup> Apparently one of the previous appointees declined the job after the two men had been notified in April. It seems that Lawrence was not cut out for the job either because on April 15<sup>th</sup>, 1801 “James Burdick of the Township of Oxford is appointed by the Court, to be a keeper of a Standard for Weights and Measures in the room of Hammon Lawrence, who is discontinued.”<sup>23</sup>

Two years later, on Sept. 18th, 1803, “The Court do nominate and appoint James Clendennin, of Woodhouse, to be a Keeper of a Standard or Standards for Weights and Measures within and for this District of London.”<sup>24</sup>

<sup>16</sup> Op. cit. p. 262

<sup>17</sup> Regulations for a Market in the Town of York, Reg. #11,1815, Broadside #1087, Baldwin Room, Toronto Reference Library,

<sup>18</sup> The Town of York, Firth, University of Toronto Press, 1962, p. 297

<sup>19</sup> op. cit. Firth, p 186

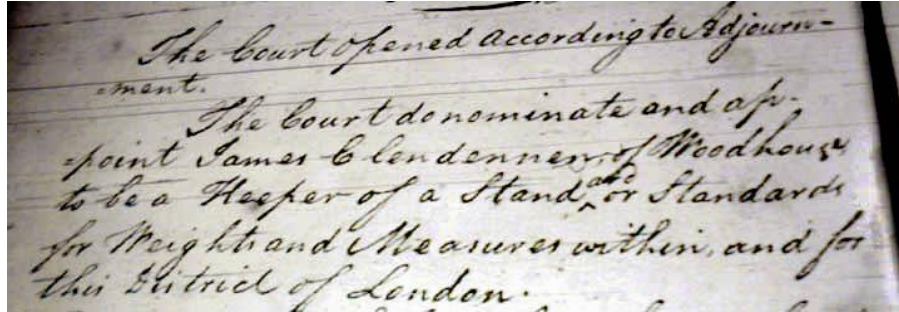
<sup>20</sup> Minutes, Quarter Sessions, Newcastle Dist., Jan. 1805. LAC – RG22 series 29 Vol.1 1802-1809 (105119-MS 698 Reel 1)

<sup>21</sup> London District Quarter Sessions Minutes, London Public Library, Microfilm Reel – R 971.326 Lon. P. 9

<sup>22</sup> Op. cit. p16

<sup>23</sup> Public Records and archives of Ontario, April 15, 1801, page 21

<sup>24</sup> Op. cit. p.132 (See the copy of these minutes on P. 35)



*London District Minutes, September 18, 1803*

Finally, on March 9, 1808, "Ordered by the Court that Albert Berdan be (sic) and he is hereby appointed keeper of the standard and scales of weights and measures".<sup>25</sup>

## Midland District (1816) - Town of Kingston

"An Act to regulate the POLICE, within the Town of KINGSTON" was passed on 1<sup>st</sup> April 1816. In the act, the rules and regulations of the town were listed. A brief reference- "relative to the inspection of weights and measures, fire men and fire companies" was all that was written into the rules for the town. Nothing was said in any detail about weights and measures.

The above act was repealed on 19th January of 1821 and a new one written to add sections dealing with assessments to pay for town expenses. Nothing more was said about measures or their inspection.<sup>26</sup>

## Ottawa District (1816)

The Minutes of the Quarter Sessions of the Peace, 24th September 1816 has this entry. "Reposed by Chancy Johnson Esq. that a fit & proper shall be appointed by the court to ascertain the Bushel, half bushel or other measure by which grain, or other dry articles shall be bought or sold, and who shall mark & seal the same with the letters & figures **G.III.R** according to law." (The term "fit & proper" means "qualified person") Jerimiah P. Marston was then appointed for one Year. The Ottawa District had been made a separate District in March of 1816 and the magistrates were just getting the organization of the District in place. The passage noted above took most of the wording directly from the Act of 1792

A second entry in the Quarter Sessions minutes is found in early April of 1818. "Ordered that the Treasurer of this District do pay out of the money in his hands a sufficient sum to purchase waits & measures as a standard for the District and that Joseph Kellog Esquire is appointed as Sealer of all said Waits & measures for the present year 1818."<sup>27</sup> This note appears to confirm that the weights and measures had been ordered. No further mention of the order has been found in the records of the District.

<sup>25</sup> Op. cit. p.171

<sup>26</sup> An Act to Regulate Police in the Town of Kingston – Chap. XXXIII, 1<sup>st</sup> April 1816

<sup>27</sup> Ottawa District Quarter Sessions Minutes, LAC RG22 Series 65, MS 697 Reel 1



## Forged “Sealers” Branding Iron



*Brand Used to “Mark and Seal” Wooden Measures*

Branding irons such as this were carried by inspectors who heated the end to red hot, then branded the mark into the side of a wooden measure to show that it was legal size. This example is English but is like those used in Canada. In this earlier period, bushels, half bushels and pecks were constructed of wood.

## Population – Upper Canada – 1812 - 1822

It is important to know the number of people who were living in the areas around Southern Ontario at that time. Note that as late as 1822, Kingston, in the Midland District, was larger than York in the Home district. Niagara was close behind.

Published figures from books, newspapers and pamphlets from this period vary a great deal. No official census was taken, boundaries were ill-defined, and people frequently moved to other locations. The following figures are from the most reliable sources.

### 1812<sup>28</sup>

Western District	4,158
London “	8,907
Gore “	6,684
Niagara “	12,584
Home “	7,700
Newcastle “	5,000
Midland “	14,853
Johnstown “	9,200
Eastern “	12,700
Ottawa “	1,500

### 1822<sup>29</sup>

Town of York	--1240
Town of Niagara	--1086
Town of Kingston	--1880 persons

<sup>28</sup> Statistical Account of Upper Canada, Robert Gourlay, Volume 1, 1822, p.612

<sup>29</sup> Emigrant's Guide to the Canadas, Wm. Watson, Dublin 1822, p 29 - and Kirby and Pierce. 1927. Annals of Niagara, Macmillan Co., p.27

## CHAPTER SIX- Measures and Markets– 1792 to 1823

In early rural Upper Canada most farmers sold their extra produce to merchants in the towns who supplied the settlers with clothing, tools and other basics. Early settlers were at the mercy of storekeepers who had the essentials they needed. Many farmers became indebted to the merchants and some lost their land because they incurred debts they could not repay. The most successful merchants were those who had connections with the military to whom they sold supplies at high prices. A future Provincial Secretary, Duncan Cameron, made his fortune as a merchant around the turn of the century through his familiarity with military officers, especially Colonel Isaac Brock who had a major account with him.<sup>1</sup>

Cameron's Account with Isaac Brock

As the population of Upper Canada grew and agriculture became more efficient, surplus produce was available for settlers to sell. They preferred to sell in local markets because there were multiple buyers rather than just one storekeeper to whom they had to sell in earlier days.

Markets were established in larger towns by Acts of the Legislature, however the running of the market was turned over to local authorities. From 1792 until the Act of Union in 1840, the General Sessions was the authority that governed and made rules for the markets. Those rules were printed and posted throughout the market and the town. As in Britain, a Market Clerk was needed to manage the market and to enforce those rules. He was charged with all aspects of the running of the market, so it was necessary for him to have official sets of weights and measures so that he could check those of the vendors. There is no evidence that any of the weights and measures that were used in the markets were made in Canada. The ones used in the markets at this time must have come from England, imported by merchants in Montreal. It appears that none of them were identified or marked as Canadian. No pre-1826 examples have been found with Upper Canada marks!

During the conduct of business, the Market Clerks at times had heated arguments with vendors over measures or scales that were declared to be illegal. It was decided that the town police would be the ones to settle such arguments. As a result, police regulations included the “policing” of weights and measures.<sup>2</sup>

<sup>1</sup> Peter Russell Fonds, F46, Microfilm Reel MS75, Reel 5, Ontario Archives

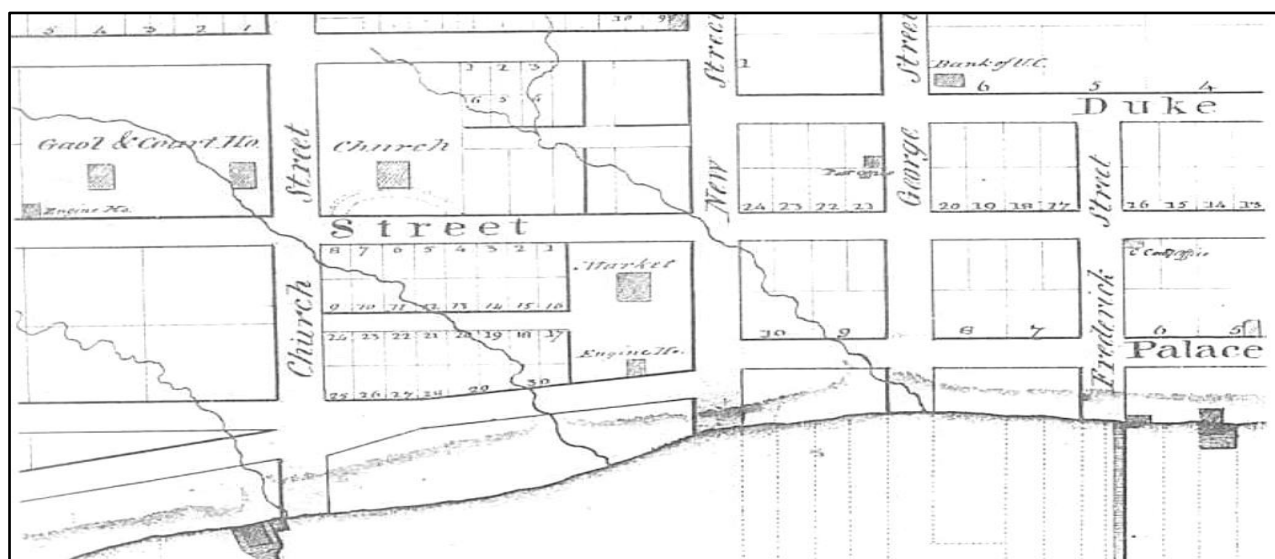
<sup>2</sup> Minutes, Quarter Sessions of the Peace, Home District, May 14, 1817, page 298

# Markets

## Home District - Town of York

A public market for York had been proposed in 1798 but was held up by minor disputes within the government. One was finally established in 1803 by the proclamation of Lieutenant Governor Hunter.<sup>3</sup> The document stated that- “a public open market is to be held on Saturday of each week throughout the year”.<sup>4</sup> A 5-acre plot had been set aside for that purpose some years before and was formally established on November 5<sup>th</sup>, 1803. (The site is still a market, now known as the St. Lawrence Market). There were no buildings on the site until large weigh scales were installed in a wooden enclosure that was called the weigh house (not shown on the map below). These scales were authorised by the magistrates and the right to build them was auctioned off to a person who would operate it as a business, by charging a fee for each load that was weighed.

An Act of the Legislature -- “to establish and regulate a market in and for the Town of York”, was passed on March 14, 1814.<sup>5</sup> The Commissioners of the Peace in the Home District “were empowered to establish a market in the town and make such orders and regulations as they deemed expedient”. These rules were ordered to be published and copies affixed in the most public places in every township of the district.



*Plan of the Town of York in 1827 Showing the Market*

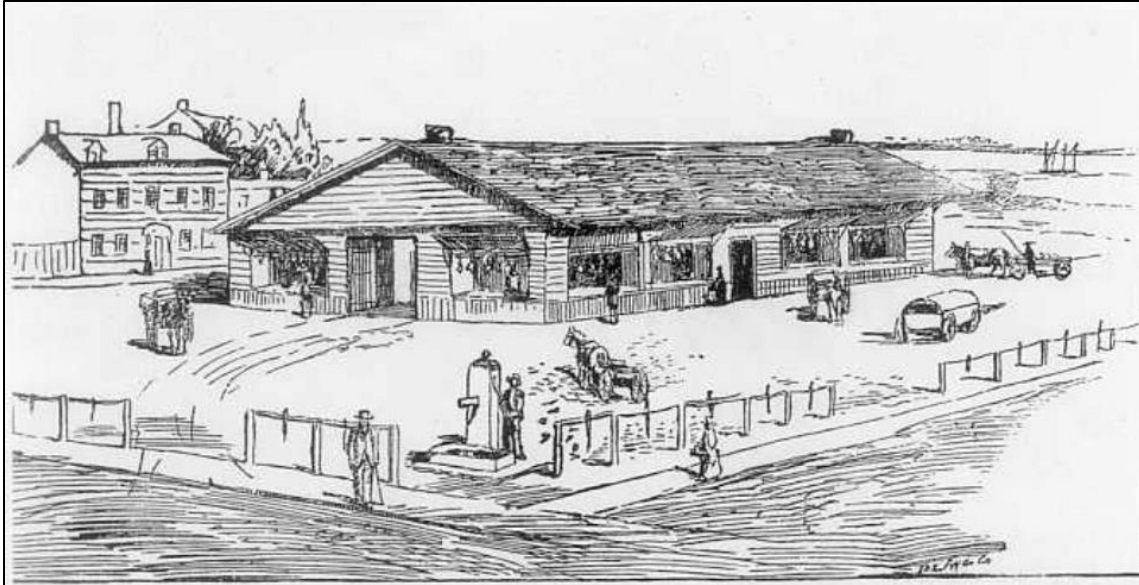
New Street is now Jarvis Street. Front Street is just north of the market, while The Esplanade is to the south of the (Fire) Engine House. The Esplanade in 1827 would have been along the shore of the lake but as land along the shore to the south was highly desirable for building docks and warehouses, the land was gradually filled in. New buildings, roads and by the mid 1800's, rail lines were erected. The St Lawrence Market is now over a kilometer from today's lakefront.<sup>6</sup>

<sup>3</sup> Op. cit., Firth P. 128,

<sup>4</sup> Edwin C. Guillet, *Early Life in Upper Canada*, University of Toronto Press, 1933, P.109

<sup>5</sup> Statutes of Upper Canada, 54 Geo.III cap. 15, 1814

<sup>6</sup> Facilities and Real Estate, City of Toronto, Stage 1 Archaeological Study, Final Report, Historic Horizon Inc., Page 28



*The First Market in York, Looking at the Southeast Corner*<sup>7</sup>

## Market Rules - Town of York

The magistrates worked to develop the market regulations and about a year later, on April 22<sup>nd</sup>, 1815, a list of rules is recorded in the Quarter Sessions minutes.<sup>8</sup> A surviving broadside published shortly after has the exact wording as those in the following minutes of the Quarter Sessions.

Some of the rules relate to weights and measures.

No. 9 Every person selling by false Weights shall pay a fine of twenty shillings, and the said weights shall be destroyed.

No.10 All persons selling provisions or any other articles by Weight or Measure in the Market-place, shall provide themselves with good Scales, Weights and Measures, regularly Stamped by the Clerk of the Market, within six months of this date; after which time, any person who shall there use Weights or Measures not stamped, shall pay a fine of twelve shillings and six pence, and forfeit the Weights and Measures.

No.11 All hay that shall in future be sold within the town of York, shall be liable to be weighed at the Market-place, as soon as a Machine for weighing the same shall be completed, whenever the purchaser shall require it; under penalty of twenty shillings, to be paid by the party who shall refuse to cause the same to be weighed.

No.12 Whereas it is expedient to appoint some person to see the aforesaid Rules and Regulations, or any others that may be hereafter made relative to the said market, carried into execution, BENJAMIN COZENS, of the Town of York, is hereby appointed Clerk of the Market.

No.17 He shall be furnished by the District with a Standard set of Weights and Measures and shall from time to time examine those used by persons exposing articles to sale in the Market, and affix a proper stamp or mark to denote the accuracy of the same; and that for so doing he shall be authorized to demand and receive from the owner thereof, the sum of one shilling and three pence for such set of Weights and Measures so stamped.

<sup>7</sup> Ibid, - Facilities and Real Estate

<sup>8</sup> Minutes, Quarter Sessions, York, April 22, 1815, Microfilm MS251, Reel 6, Ontario Archives

## York Police - Market Rules

On January 14, 1817 an act of the 17<sup>th</sup> Parliament established a “police” in York and directed the magistrates to “make and publish rules relative to the inspection of weights and measures”<sup>9</sup>

“The Regulations for the Police of the Town of York” appeared later in the minutes of the Quarter Sessions, May 14<sup>th</sup>, 1817 and were subsequently printed in the Upper Canada Gazette, later in August.<sup>10</sup> These rules cover all aspects of the operation of the town, including the market. Bakers had to have a license, bread was to be baked in loaves of a standard weight, and was to be stamped with the initials of the baker’s name. Slaughterhouses were tightly controlled. Rules for fire control were set forth – every home was to have a bucket and ladder for accessing the roof. Controls were set for the running loose of swine.

Most of the Market’s rules regarding weights and measures are included in these regulations, - the duties of the clerk, the inspection, the offences, the stamps and marks to be used. The reason for their inclusion was to make police officers aware of the rules so that if offences occurred the constables could act on any complaint by the Market Clerk.

### - Market Weights and Measures

The following is an excerpt from the minutes of the York Quarter Sessions of May 14<sup>th</sup>, 1817. This is the portion of the police rules that dealt with weights and measures.

“That the Clerk of the Market procure Standard Weights and Measures such as Half Bushel, Peck and Half Peck, Gallon, Half Gallon, Quart, Pint, Half pint, and Gill Measures, Weights from Fifty-Six pounds to one ounce, to be kept in his custody, for the purpose of regulating the Weights and Measures within the said town, and that the said Clerk shall from time to time, examine the weights and measures used in Shops, Taverns, Warehouses within the said Town, kept for the purpose of weighing or measuring any articles offered for sale, and that any person or persons having in his, her or their possession, or use any weight or weights, measure or measures shall forfeit and pay for every such offence, a Sum not exceeding forty shillings, nor less than ten shillings, over and above the loss of Such Weights and Measures which the Clerk of the Market is required to seize, and break and destroy. That all weights and measures not having already a Standard Stamp, hereafter to be used in the said Town shall be Stamped by the Clerk of the Market with the mark. For doing which he will be entitled to demand and receive from the owner thereof, the sum of three pence currency for each stamp and no more.”<sup>11</sup>

## York Market Accounts – Minutes, Sessions of the Peace

A report from the clerk of the Market with a list of small measures needed for the market was presented but was “filed”. 6<sup>th</sup> August 1817 (Minutes 21<sup>st</sup> June, p. 310)

An account presented by the Market Clerk asked for 4 Pounds 7 shillings and 1½ pence for “stamps”.<sup>12</sup> The concept of postage stamps was still some years in the future, so this terminology referred to the metal punches or “stamps” used by the inspector to brand the measures with the monarch’s initials to verify their accuracy. These were probably made in York by Isaac Collumbes, a local metal smith. 1<sup>st</sup> November 1817. (See page 63)

“Alexander W. Harvey was appointed Clerk of the Market For the Current Year – his pay to commence from the 3<sup>rd</sup> March last—the day on which he first Attended the Market as such- And ordered that he get railing put up round the Market House—the expense of which to be paid by the Treasurer of the District”. 16<sup>th</sup> May 1818. (Minutes p. 34) “and ordered that the Clark of the Peace do furnish the present Clark of the Market with the Additional Market Regulations and the Police Regulations Respecting Weights and Measures”. 20<sup>th</sup> May, 1818. (Minutes 21<sup>st</sup> June p. 330)

<sup>9</sup> The Statutes of the Province of Upper Canada [1791-1831] – James Nickalls Jr., Page 210

<sup>10</sup> Upper Canada Gazette, August 21, 1817, Page 136

<sup>11</sup> Minutes, Quarter Sessions of the Peace, 21st June 1817, Microfilm MS251, Reel 6, Archives of Ontario

<sup>12</sup> Ibid. 1<sup>st</sup> Nov. 1817

“Ordered that there be furnished -- one beam and Scales, one four Pound Weight, one two pounds and one-pound weight, half a pound and one Quarter of a Pound and two-ounce Weights”.  
17<sup>th</sup> July 1819. (Minutes p. 362)

The death of the market clerk brought “petitions” from people hoping to take his place. “Upon the Court examining the same, Cory Coulson was appointed to Act as Clerk of the Market until October Session next when if approved of, will be confirmed in the appointment and ordering that he be notified thereof – and instructed to apply to the person who may have in charge the Scales, Weights and Measures in possession belonging to the Police and to attending to the duties of clerk of the Market accordingly”. 13<sup>th</sup> September 1820. (Minutes p.417)

“The Clerk of the Market- produced his Accounts for disbursements in repairing the Hay Scales- and purchasing Weights and Measures- amounting to £2 -19s – 9p which was approved and ordered that the sum be paid out of the Police Fund” 21<sup>st</sup> April 1821 (Minutes p. 443)<sup>13</sup>

## Rules of the York Market

Several rules were recorded in the minutes of the York Quarter Sessions of May 29th, 1824. Those that pertain to weights and measures are shown here.

#18 The Clerk “shall be furnished with a Standard set of Weights and Measures and shall from time to time examine those used by persons exposing articles to sale in this Market, and affix a proper stamp or mark to denote the accuracy of the same; and for so doing he shall be authorized to demand from the owner thereof, the sum of one shilling and three pence for such set of Weights and Measures so stamped and 3 ½ pence for each single measure.”

#19 “He shall at any hour between eight in the morning and five in the evening attend when called upon to Weigh Hay or Straw, or to weigh any Waggon, Cart, or Sleigh which he shall also mark and number if required”

#20 “He shall also, at least once in every three months examine the weights and measures in the different Stores and Public Houses as well as the Bread baked by the Bakers in the Town of York and report that duly as performed on the first day of each Quarter Sessions”.<sup>14</sup>

Later that year, minutes of the York Quarter Sessions had two entries related to the market.

### York Quarter Sessions, 6<sup>th</sup> August 1825

John Gamble for the District ( <i>illegible</i> )	13s	9p
<i>do do do</i> for a Weigh Beam and Ten Cases of Weights purchased in Montreal and for weights of the same	<u>£ 12</u>	<u>11s</u> <u>1p</u>
	£ 13	4s 10p

The Clerk of the Market produced the following accounts for repair in the Market House

Wm. Thomson, Joiner, for fitting up the Weigh House	£ 3	18s	1p
Isaac Columbes for Iron Work for the weighing Scales	£ 1	17s	4p
Correy Coulson for small weights for the Market		<u>8s</u>	<u>1p</u>
	£ 6	3s	5p

“Ordered that Mr. Hugh Carfrae be paid the sum of Six pounds, seventeen Shillings & 3 ½ pence in addition to the 1 pound, 17 shillings, 8 ½ pence. The balance in his hands as by his accounts rendered for repairs done in the market Square and New Street, to remunerate him for his attendance in carrying into effect, the order of the sessions in that respect.”<sup>15</sup>

<sup>13</sup> Quarter Sessions of the Peace, Home District, RG22-95 (MS 251, Reel 1) Pages 310, 330, 362, 417, 443

<sup>14</sup> Ibid, (Reel 2) Pages 113, 114

<sup>15</sup> Ibid, Page 138, Aug 16, 1825

## Eastern District - Cornwall Market

An Act was passed on November 27, 1818 to establish a market in Cornwall. Contrary to the statutes passed by the Legislature for other Districts, there were only vague instructions given to the magistrates. They were therefore free to make the rules and levy fines as they saw fit. The regulations that were designed to govern the market were to be published and displayed in the “most public places in every township in the district”.<sup>16</sup>

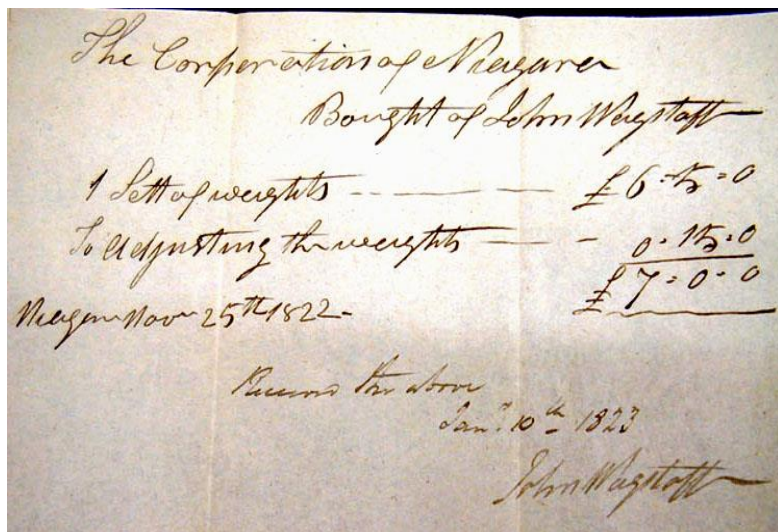
## Niagara District - Niagara Market

An Act was passed on April 7, 1817, entitled, “An Act to establish a MARKET in the Town of NIAGARA in the Niagara District”. The act enabled the Magistrates to organize the rules, choose the location and fix the hours of opening. It directed them to publish those rules and to have them posted in public places around the town. General rules for the prosecution of offenders were outlined. A new market house was authorised to be built, the costs to be paid by assessment of property owners. No mention is made about a market clerk being appointed to run the market or for anyone to supervise the scales, weights or measures.<sup>17</sup>

On July 12, 1819, an Act was passed to “Establish a POLICE in the DISTRICT of NIAGARA”. It contained this short reference – “regulating the assize of bread, slaughter houses and nuisances, and relative to the inspection of weights, measures, fire men and fire companies”. It is apparent that after two years, the Market House had not yet been built because this bill once again discusses the assessment of ratepayers for an amount to be used in its construction. Nothing further is said about weights and measures. The regulations were to be posted in “three or more public places in the town”.<sup>18</sup>

## John Wagstaff – Niagara Coppersmith

During this period the “Corporation of Niagara” was billed by a coppersmith and brass founder



Wagstaff Bill for Weights 1822

Niagara Historical Museum

of that town for “1 **Sett of weights for 6 pounds, 5 shillings**”. A charge of 15 shillings was added to the bill to cover the work of “Adjusting the weights.” The bill was presented on Nov. 25<sup>th</sup> 1822, and a receipt for payment was signed at the bottom of the bill by John Wagstaff and dated Jan’y 10<sup>th</sup>, 1823 (The total of 7 Pounds Sterling would be equal to more than \$895 in present-day Canadian dollars)<sup>19</sup> It is probable that these weights were to go to the market clerk for use in the new market building.

The Market House in the village had been completed by 1823,

because the “Police Act was amended so as to raise by assessment, fifty pounds a year for keeping in repair the market house and fire engines.”<sup>20</sup> The judges in Quarter Sessions issued a

<sup>16</sup> 57 Geo. III cap. IV, 1818 Seventh Parliament 3<sup>rd</sup> Session

<sup>17</sup> 56 Geo. III, Cap V, 1817 Seventh Parliament 1<sup>st</sup> Session

<sup>18</sup> 59 Geo. III, Cap V, 1819 Seventh Parliament, 4<sup>th</sup> Session

<sup>19</sup> Bill for weights- John Wagstaffe, -- Niagara Historical Museum

<sup>20</sup> History of Niagara, Carnochan, p. 230

change to the Police Regulations in October, 1824 where market days were shortened to three days from five.

Wagstaff was a long-time coppersmith in Niagara, having operated his business through the first half of the 19<sup>th</sup> century. He was born in 1779 in the United States

**JOHN WAGSTAFF,  
TIN, COPPER & SILVER  
SMITH.**  
RESPECTFULLY informs the public that he continues the manufacturing of

**Tin, Copper,  
& Sheet-Iron  
Ware,**

in all its various branches, at his old stand opposite Alexander Rogers' Hotel, in the town of Niagara, where all kinds of work in the above branches will be done on reasonable terms, and with neatness and dispatch. He keeps constantly on hand a large assortment of

**Excellent Tin-Ware,** which he sells wholesale and retail, and all old work repaired on the shortest notice.

He has, also, commenced the **Watch-Repairing and Silver-Smith Business.**

All Watches and Clocks entrusted to his care, will be repaired in the best manner, and on reasonable terms.

**Silver Table & Tea Spoons,  
Sugar-Tongs and Soup-Ladles,**

made in the newest fashions, at the New-York prices, and warranted of good Silver. He will have on hand in a few days, a good assortment of **Spoons of all descriptions,  
Jewelry, & Watch-Trim-  
mings.**

☞ Cash paid for old Silver and Pewter, and old Brass and Copper taken in exchange for Tin-Ware.

☞ N.B. Cut money taken in exchange for Silver work.

Niagara, June 4, 1817. 46 ff

*Niagara Spectator June 1817*

and came to the Niagara area around the turn of the century. He opened a tin-smith shop in Newark in the summer of 1801 and advertised in the Niagara Herald on September 12 of that year.

By November he had a partner, Smith Allison, and

**Tin Manufactory.**  
JOHN WAGSTAFF informs his friends and customers that he has taken into partnership, *Smith Allison*, under the firm of

**WAGSTAFF & ALLISON.**

**THEIR** shop is now opened in the house lately occupied by Mr. Mulgrave, where they make all sorts of tin ware. They have a general assortment on hand. The prices are low, and prompt payments required. Persons favoring them with custom will have their grateful acknowledgements.

Niagara, Nov. 7. [43]

*Niagara Herald, November 1801*

lost his means of earning a living.<sup>21</sup> The Government of Upper Canada had banned citizens from traveling to the U.S. while the war was on and considered it treasonous for anyone to do so. Canada was at war with the U.S. and leaving without government permission was considered to be a seditious act. The act, passed on March 14, 1814 decreed that land and property would be confiscated from anyone convicted under the new law.<sup>22</sup>

He returned to Niagara immediately after the war ended but was arrested and charged with treason. His trial commenced in 1817 and resulted in the confiscation of his property.<sup>23</sup> He got the support of local officials and after his story was told to the members of the trial Commission he was exonerated, and his property returned. The bill, "An Act for the relief of John Wagstaff" had final approval on July 12<sup>th</sup>, 1819.<sup>24</sup>

**TIN WARE.**  
**JOHN WAGSTAFF**  
**H**AS opened a tin shop near Mr. Daily's, where he makes all sorts of tin ware. He will keep a general assortment on hand, that may be furnished on demand, and such as may be required of a particular description will be made on short notice. The prices will be low, and prompt payments required. Persons favoring him with their custom will have his grateful acknowledgements.

Niagara, August 1.

*Niagara Herald, September 12, 1801*

they opened a new shop together. He developed connections with various other merchants and so business went well until the war of 1812.

Wagstaff lost much of his property when the enemy occupied and burned the town which at that time was called Newark. He left the country suddenly in June of 1813 and traveled to the United States to get help and employment from relatives there. He later explained that he left the town because he was ill, had a large family of nine persons to support and had

<sup>21</sup> Tenth Report of the Bureau of Archives for the Province of Ontario, 1913, pp.122-123

<sup>22</sup> Alien Act Records, Gore District, 1816-1817, Env.1, Ref. code RG22-144, Box 1, Ont. Archives. Also, Statute 54 George III, Cap. VI, 1814, Ontario Archives

<sup>23</sup> Gore Commission and Inquisitions, RG 22-144 Alien Act, Ontario Archives

<sup>24</sup> Seventh Parliament, 59 Geo. III Cap 21, An Act for the Relief of John Wagstaffe of Niagara, Tinsmith



Interestingly, an original broadside, published May 27<sup>th</sup>, 1821, which listed the names of those accused of “High Treason”, still contained Wagstaff’s name.<sup>25</sup>

In spite of these tribulations, his business continued to prosper. The sizes of his advertisements are a good indication of that. A Niagara Spectator ad on Friday June 27, 1817 (see p. 47) took up a whole half column, one of the largest in the paper. It advertised that he worked with tin, copper and ironware as well as silver.<sup>26</sup> By January of 1825 he advertised in the Gleaner newspaper that he had a brass foundry.

By August 14 of 1826 he had been appointed to the position of Inspector of Weights and Measures for the Niagara District.<sup>27</sup> Interestingly, he would have had custody of the large set of standard measures from 1826 that are now in the collection of the Niagara Historical Museum.

His name appears again in April of 1830 on an invoice given to John Servos, a mill owner, for adjusting some weights and three measures.<sup>28</sup> The last mention that has been found concerning John Wagstaff is in an 1836 remembrance of Mr. Jas. Davidson. He described the Town’s buildings and their owners of that earlier period. On the corner “at Market Square was Clark’s grocery, then a tall, narrow three-story store owned by the Wagstaffs”.<sup>29</sup>

Wagstaff died in April of 1852 at the age of 73. His son Richard, probably in business with his father and listed as a Hardware Merchant, died the previous year at age 41. Both died of consumption.<sup>30</sup>

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**District of Niagara.**  
**PROVINCE OF UPPER CANADA.**

**W**HEREAS, by an act of the Legislature of this Province, passed 19<sup>th</sup> March, 1823, it is enacted, that the Winchester measure, and a standard for other weights and measures, be established thro'out this Province. And as the said standard weights and measures have been received, and the magistrates in general Quarter Sessions have nominated and appointed Mr. JOHN WAGSTAFF, of the town of Niagara, to be *Inspector* and have charge of said weights and measures: The inhabitants of the District aforesaid will, therefore, take **NOTICE**, that the said standard **WEIGHTS** and **MEASURES** are now in the actual possession of the said Inspector, who is ready to act and do his duty conformably to the provisions of the law aforesaid, of which let all concerned take notice.

**RALFE CLENCH,**  
Clerk of the Peace, &c.

Niagara, Aug. 14, 1826.

*Farmer's Journal, September 27, 1826*

<sup>25</sup> Toronto Reference Library, Baldwin Room, Broadside Collection

<sup>26</sup> Niagara Spectator, June 27, 1817, Page 1

<sup>27</sup> Farmer's Journal, Sept. 27, 1826, p. 4

<sup>28</sup> Niagara Historical Society Museum, Accession No. 2002.044.090

<sup>29</sup> Reminiscences of Niagara, No. 11, Niagara Historical Society.

<sup>30</sup> Vital Statistics-Upper Canada/Canada West, Vol. 1 Part 1, Niagara District, 1795-1856

## CHAPTER SEVEN- Upper Canada Weights & Measures Act - 1823

On January 24, 1823 it was announced in the House of Assembly, that a bill was to be introduced “to repeal earlier laws governing weights and measures of Upper Canada and establish a uniformity of weights and measures throughout the province.” Much work went into the planning and writing of this act and so, unlike the earlier one of 1792, this bill had much more detail. However, unlike the Lower Canada act, this had very little information about the actual measures and weights that were to be acquired. There was no mention of Troy weights, no specific instructions about the materials to be used and no direction about which capacity system was to be used.

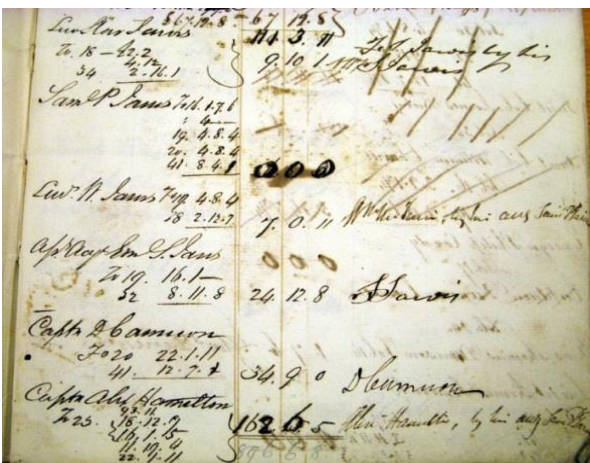
The Act was passed on 19<sup>th</sup> March 1823 and contained an appropriation of money to pay for “a standard of weights and measures to be used in this Province”.<sup>1</sup> It was decided that 75 pounds sterling would be an appropriate amount “towards defraying the expences (sic) of obtaining a complete Set of Weights and Measures which shall be placed in the custody of His Majesty’s Secretary of the Province.” Britain was preparing to introduce Imperial Measure in 1824-6. Canada however, decided to keep the Winchester and Wine system that was still used in the United States. It was thought that it would be beneficial for trade with the U.S.

The magistrates in Quarter Sessions were directed to furnish their districts with copies of the Standards for the use of inspectors who were to be appointed in each District. The copies were to be ordered by the Secretary and supplied to the Districts “at the cost of the said District”<sup>2</sup>

Upon receiving the copies, the inspectors were required to examine all weights and measures that were brought to them by the local businesses, and if they were true, “to mark, stamp or brand the same as near the two ends, or top and bottom as may be, **G. I V. R.**”<sup>3</sup> The inspector was to charge “four pence and no more” for every piece so marked. The onus was on the merchant to take his equipment to the inspector’s premises. After a grace period of six months, anyone found using a device that had not been examined and stamped, “shall forfeit for every offence, two pounds”. Half of the penalty would be paid to any “informer and the other half to the Receiver General”. This part of the law was later found to encourage some people to make false accusations to gain one pound, roughly equivalent to \$100 in today’s currency.

### Secretary of the Province

The Provincial Secretary’s job was an onerous one. It was the most powerful office in the



1812 Military Pay- Captain D. Cameron

Province since it combined the Department of Justice, the Registrar General and Secretary of State. It fell to the Secretary to carry out the wishes of the two houses of government as well as looking after the needs of the Governor. In the case of the weights and measures legislation, the job of procuring the Standards from England was his. It was his responsibility to have accurate copies made for the various districts. These were called District Standards, were to be made locally when the official standards arrived from Britain since they were to be used as models, both for shape and accuracy.

<sup>1</sup> Statutes of Upper Canada, 4<sup>th</sup> year Geo. IV, 1823, Third session, Chap. XVI

<sup>2</sup> Ibid, Section III

<sup>3</sup> Ibid, Section IV

The Provincial Secretary was Duncan Cameron. He was a Scotsman, born in Montreal to a family of fur traders. Few records of his early life exist. He might have been a soldier, since a man by that name was stationed with the British army in Detroit in 1790.<sup>4</sup> It is known that he lived in York in 1800 and was without doubt an educated man. He was a successful merchant in Upper Canada who had General Brock as a customer (*see P. 41*). He went on to become a prominent local official and militia Captain who led the 3<sup>rd</sup> York Militia at Queenston Heights where Isaac Brock was killed. Cameron and his men fought on in the successful battle that finally took the Heights that day.<sup>5</sup>



*York 1803- Cameron owned the second large house from left.*

He made friends with important men of the town and so entered the upper levels of society very quickly. His name is first found as a town warden on the list of inhabitants of York in 1801. In 1802 he was one of two assessors in York. He, along with William Allen, was treasurer of the fund to build St. James' Church in 1803.<sup>6</sup> That same year he built a house at Front and Duke Streets near the fort. He was Assistant Secretary of the Indian Department for several years, holding that position until some time after 1814.<sup>7</sup>

He was an investor in land and eventually became a large property owner. He purchased 210 acres on Yonge Street near Hogg's Hollow in 1804. He also owned acreage in Scarborough, the Guild Inn property was once part of his land holdings.<sup>8</sup> He was the first landowner in Fenelon Falls, the town's original name being Cameron's Falls.

He took an important role during the American occupation of York in 1813 when he helped to negotiate the surrender of the town.<sup>9</sup> He was elected to the House of Assembly and sat as a Justice of the Court of General Sessions of the Peace. In 1817 he built a large house called Gore Vale on Queen Street, north of Fort York, and being unmarried, shared it with his sister.<sup>10</sup> With the help of Sir Francis Gore, his patron, he was appointed Provincial Secretary in 1817. He was a founding member of the Bank of Upper Canada upon its incorporation in 1821 and sat on its board for 17 years.<sup>11</sup> He died in office in 1838.

A fur trader for the Northwest Company shared the same name. He retired to the Ottawa area and was elected to the Legislative Assembly during the 1820's. A good amount of confusion about these two Camerons occurs when researchers study this period of Ontario's history.

## The Official Standards - 1826

The procedure when buying items from Britain at that time was to put the matter of ordering, packing and shipping into the hands of an agent. Cameron did this. Some letters from the Montreal importing firm of Desrivieres, Blackwood and Company survive in Archives Canada. One letter dated 29<sup>th</sup> June 1824 indicates that the order for "the Scales & weights from London" had been placed prior to November of 1823.<sup>12</sup> This letter had been written to inform Cameron that the weights and measures had been shipped from London aboard the vessel "Robson" on the 3<sup>rd</sup> of

<sup>4</sup> The Windsor Border region, E.A. Lajeunesse, Champlain Society, 1960, p. 167

<sup>5</sup> The Story of Isaac Brock, Walter Nursey, 2007.knowncrafts.net P. 96

<sup>6</sup> *Gazette and Oracle*, June 4, 1803

<sup>7</sup> Select British Documents of the Canadian War of 1812, Vol. III, part 2, p.732

<sup>8</sup> www.uelac.org/loyalist --Yonge Street, Hogg's Hollow

<sup>9</sup> Ten Years of Upper Canada in Peace and War, Matilda Ridout Edgar, p. 196

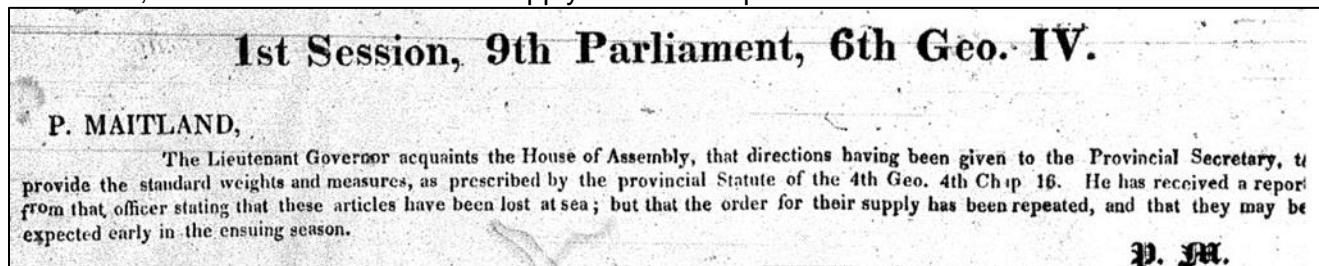
<sup>10</sup> *Between the Bridge and the Brewery*, Harstone, 2005, P. 19

<sup>11</sup> Statutes of Upper Canada, 4<sup>th</sup> Session, Seventh Parliament, Chap. 24, 1819 - to incorporate the Bank of Upper Canada

<sup>12</sup> Library & Archives Canada, RG 5A1 vol. 67

April but that the ship was missing and had not been heard of since her departure. The Desrivieres firm assured Cameron that they would submit an order for replacements if it turned out that the ship was lost. No mention is made of the manufacturer of the measures even though the maker sent an invoice to Desrivieres that quoted the cost at 114 pounds 11s and 8d.

A second letter from Montreal, mailed on Oct. 23, 1824, confirmed that the ship had gone down at sea. They had ordered new measures, but they could not be sent from England until the following Spring. Parliament was informed on February 15<sup>th</sup>, 1825, that the measures “have been lost at sea, but that the order for their supply has been repeated.”<sup>13</sup>

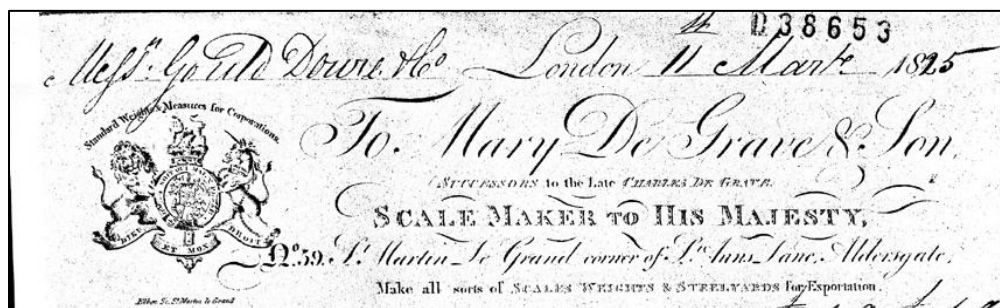


*Announcement in the Parliamentary Record*

Finally, a letter from Montreal dated 15<sup>th</sup> June 1825, confirmed that the replacement measures were safe in Montreal. Cameron was informed that there was an invoice from the forwarders in London, Messrs Gould Dowie & Co., for 118 pounds, 15 shillings and 1 penny. They were about “to be sent from LaChine in Mr. Duff’s boats”.<sup>14</sup> Donald Duff and Robert Grant had been forwarders in 1818, owning about eighty batteaux, large flat-bottomed vessels that could be paddled, poled or pulled by ropes up the rapids to Lake Ontario. The partnership broke up in 1821 and Duff became sole owner of the company.<sup>15</sup> Although there are no further records of this shipment, it is likely that they arrived in York by mid-July of 1825.

## The Maker of the Standards

Luckily, the importer in Montreal included the original invoice from the maker in his letter to the Provincial Secretary. The maker turned out to be a woman, Mary De Grave, who had taken over the business of scale making after the 1799 death of her husband Charles who had founded the firm in 1767. She ran the company, Mary De Grave and Son in Aldergate, London until 1844 when she gave control of the company to her son, also named Charles.<sup>16</sup> Their letterhead states that they “Make all sorts of Scales Weights & Steelyards for Exportation.”



*Letterhead of Mary De Grave & Son, 1825*

<sup>13</sup> Library and Archives Canada RG S A1 Vol. 67

<sup>14</sup> Library and Archives Canada, RG S A1 Vol. 72

<sup>15</sup> Steamboat Connections, Montreal to Upper Canada, by Frank Mackey, Publ. McGill-Queens, pp. 10, 20, 223, 225

<sup>16</sup> Nineteenth-Century Scientific Instruments, Gerard Turner, P. 68

		£	s	d
UC	To a Best Pos Dual Beam Gilt Brass chains copper pane complete	10	10	
	To 2 pair of smaller do 1 pair to adjust the 2-1 & 1/2 Nrights & 1 pair for last light under the <sup>see</sup>	2	19	
	No. 1 To a Complete Set of Nrights made of Yellow Metal from 5 to 1 stahn	15	17	
	To a Mahogany Box for the 2 pair of small scales and a deal chest to hold the whole lock key & complete	3	2	
	To Engraving the Nrights of Mr Upper Canada 1825	2	10	
No. 1	To Identical Stamps & Sealing do at the Exchequer and at Quilt hall	9	10	
	To a strong Case for do	15		
				45 3
	No. 2 To 1 each Best Winchester measures - Bushell & do Pek Gallon & do Quark Pint 1/2 Pints and 1 each Wine measures Gallon & do Quark. Pint. 1/2 do - Gell and 1/2 Gell	50	13	
To Engraving do of Mr Upper Canada 1825	7	11		
To a strong Case	11	6		
			58 4 6	
3	To a Brass Meas and Yard measures & Yard Rod divided to order in Paris cast Rod	4	19	
	To Engraving do	5		
	To a Case	3	6	
			57 6	
			£108 15 0	

*Wm*

**The handwriting of 1825 is difficult to read so the following will make it easier.**

To a Best Brass Beam Scales Brass chanes copper pans complete	£10 10s
To 2 pair of smaller (scales) 1 pr to adjust 2 – 1 & Weights & 1 pair for weights under the??	£ 2 19 s
To a complete Set of Weights made of Yellow Metal from 56 to 1 drachm	£15 17 s
To a Mahogany Box for the 2 Pair of small Scales and a deal Chest to hold the whole lock and key etc. complete	£3 2s
To Engraving the weights GR Upper Canada --- 1825 ----	£2 10s
To Indenture Stamps & Sealing Do.at the Exchequer and at Guildhall-----	£9 10s
To a Strong Case for Do -----	_____15s
	£45 3s
To 1 Each Brass Winchester Measures --- Bushell ½ Do. Peck Gallon ½ Do Quart Pint ½ Pint and Each Wine Measures Gallon ½ Do Quart, Pint ½ Do Gill and ½ Gill -----	£50 13s
To Engraving Do G R Upper Canada 1825	£7 -- --
To a Strong Case	11s 6d
(Sub total)	£58 4s 6d
To a Brass Ell and Yard Measures & Yard Rod Divided to order in an Wainscot Box	£4 19s
To Engraving Do	5s
To a Case	3s 6d
	£ 5 7s 6d
(Total for W & M)	£108 15s 0d <sup>17</sup>

<sup>17</sup> Invoice from Mary de Grave & Son, Public Archives Canada, RGS - A1, vol. no.72- D38653

## Continuation of the Invoice

38654

Invoice of goods Shipped by Gould Dowie & Co on board  
the Amethyst, W. J. Thompson Master of Montreal by order  
& for account & ?? of Messrs Desrivieres Blackwood & Abott,  
There unto them Consigned -

UC	1/3	3 Cases Wright's Measures for De France Warbuns	108. 15.
		Charges	
		To Paid to Capt Whipp's 28 Entry 24/6	1. 1.
		Freight 10/ prop. Bills Lading 1/	11.
			1. 12.
		6 Mos Int	8
			1. 12 8
		To Insur: on £125. to Com 5/6 at 35/100	110. 7. 8
		Common 5/6 Cont.	2. 16 4
			113. 2.
			5. 13. 1
		6 Mos due 25 Sept 1825	118. 15. 1
		London 28 March 1825	
		C. B.	
		Gould Dowie & Co	
		Directed to	
		The North	
		Duncan Cameron Esq	
		Port	
		U. Canada	

Invoice of the Shippers, Gould, Dowie &amp; Co.

"Invoice of goods Shipped by Gould Dowie & Co on board  
the Amethyst, W. J. Thompson Master of Montreal by order  
& for account & ?? of Messrs Desrivieres Blackwood & Abott  
There unto them Consigned"

Wharfage, duty, freight, interest, and insurance brought the total to £118 15s 1d

Shipping charges brought the total bill at Kingston to the sum of £152 16s 7d<sup>18</sup>

<sup>18</sup> Invoice from Mary de Grave & Son, Public Archives Canada, RGS - A1, vol. no. 72, - D38653



Part of the 1825 Mary De Grave and Sons set made for Upper Canada

De Grave 56 Pound weight, 1825

Photos courtesy Canadian Museum of Science and Technology

No information has been found that indicates exactly when the Standards arrived in York. They would have been delivered no later than the end of August of 1825 since they were in Montreal in the middle of June. We know that the De Grave Standards were to be kept safely in the Secretary's office upon their arrival in York. They were to be used initially as patterns for local artisans to reference in order to make copies for the Districts. Their purpose after that was to allow the District measures to be checked periodically for accuracy. Since the working standards were moved about during the inspection process, they would have been subjected to hard use and would occasionally need "adjustment" to make sure they were correct.

## Cost of Measures Compared to the Present

It is helpful to understand how the costs of 1825 relate to those of today. There are several methods that are used to compare costs of goods and incomes of the 1825 period with present day figures. Research has been done where calculations based on historical records have determined monetary relationships through the years. According to studies found on the website shown below, one British pound in 1830 bought what would now cost 75 Pounds. At that rate, the cost of the Standards today would be almost **£8,000**. However, if present day labour costs are considered their value would be **£79,500.00**

A convenient website for calculating these comparative figures can be found at - <http://www.measuringworth.com>.

In the aftermath of the war of 1814, £195 would "purchase a complete farmhouse, as well as a barn, stable and outhouses and still have enough left to buy a team of oxen and a plough".<sup>19</sup>

The population of York in 1825 was around 1670 people with just a few men in the metalworking trades.<sup>20</sup>

<sup>19</sup> Plunder, Profit and Paroles, George Sheppard, p. 123

<sup>20</sup> Firth, Edith, The Town of York: 1815-1834; A Further Collection of the Documents of Early Toronto, P. 29



## Inspector's Standards

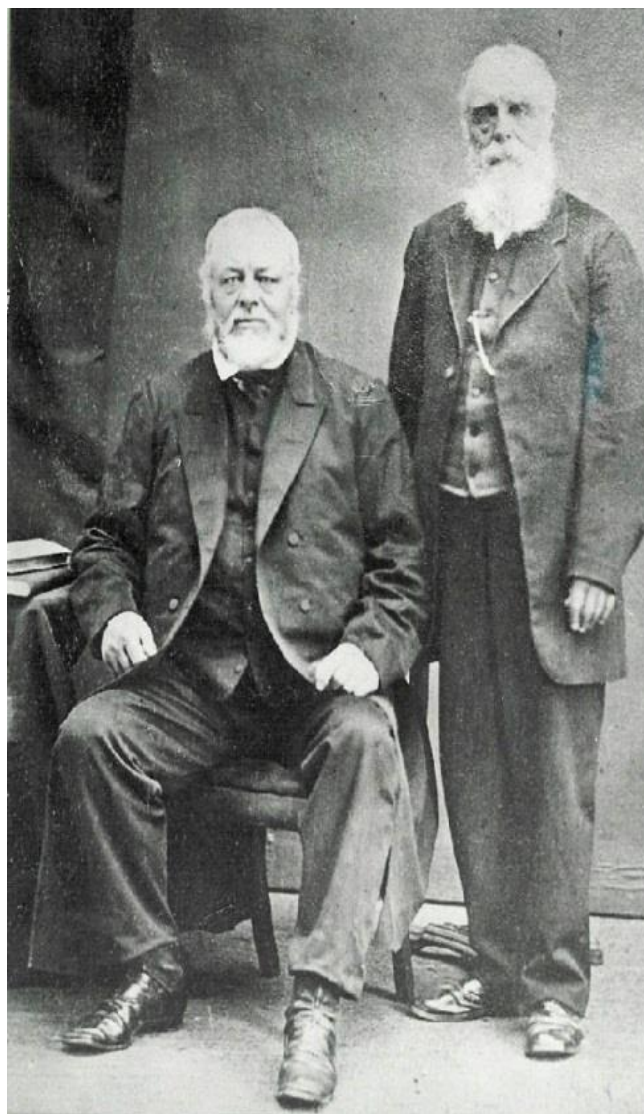
In order to carry out the intent of the new law, certain things had to happen. By this time in early 1826, eleven districts had been organised in Upper Canada and each district was starting to appoint inspectors. Accurate copies of the official De Grave measures and weights had to be made by competent local craftsmen and supplied to those Districts. Duncan Cameron must have been anxious to have these standards made, as two years had gone by since the statute had become law, and District Magistrates were already asking for their sets of measures.

The local standards could not have been ordered from England because the time available for contacting English makers and finalising an order would have taken several months. The shipping season from Montreal began in late March. The crossing time from London to Montreal varied from 10 days to three weeks, depending on the weather. An agreement between the maker in England and the contractor in York would have required several exchanges of letters and would have taken up much more time than was available. The best choice was to rely on Canadian makers. The official standards had arrived in late summer but the next documents (see below) that were found are from York and are dated December of 1825. They give estimated costs for the District copies. Such a long delay can be understood when it is realised that Cameron would have had to find competent people to handle the project. Those men then had to locate experienced craftsmen who would check the DeGrave originals, take accurate measurements and assess the costs of materials and labour. This process would have taken several weeks!

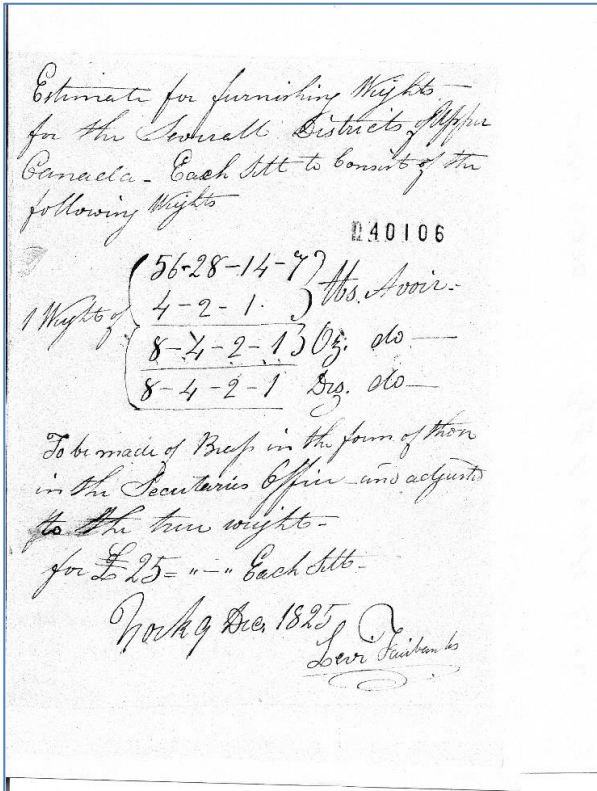
Cameron decided to use two different contractors. One was the Helliwell brothers, of York who had a successful mill in the Don Valley and were also brewers and owners of a dock south of York market. A relative had a coppersmith business in the Don complex.

The other, Levi Fairbanks, was a man who had run several successful small enterprises in the town. Since he had been a gunsmith at one time in his career and therefore knew about the casting of brass, he was chosen to supply the weights. Each of them came up with estimates of the cost of their part of the project and presented them to Duncan Cameron.

Both the weights and the measures were to be stamped with the size of the weight or measure using the letters "U.C." (for Upper Canada) and the District name. There is no evidence that these men were expected to manufacture the articles themselves, so it is possible that the weights as well as the measures were made elsewhere.

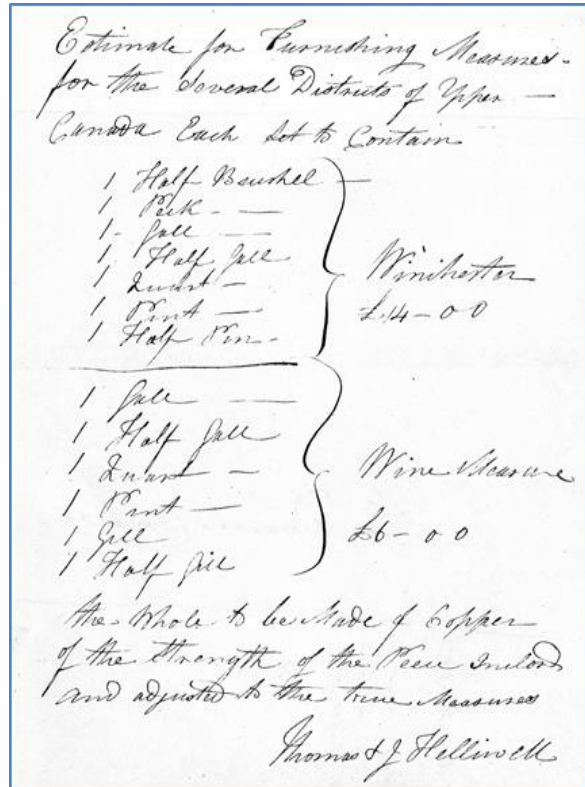


*Thomas and Joseph Helliwell, c.1870* City of Toronto Archives



Estimate by Levi Fairbanks

December 1825



Estimate by Thomas &amp; J. Helliwell

December 1825  
Archives Canada

The estimate shown above left, was signed by Levi Fairbanks and dated 9 Dec. 1825. It listed seven weights from 56 lbs. to 1 lb., four smaller weights from 8 oz. to 1 oz. and four-dram weights from 8 dr. to 1 dr., all Avoirdupois. "To be made of Brass in the form of those in the Secretaries Office and adjusted to the true weights - for £25 - Each Set"<sup>21</sup>.

The second undated document was signed by Thomas and J. Helliwell and said, "Estimate for Furnishing Measures for the Several Districts of Upper Canada Each Lot to Contain". It then listed seven Winchester measures at £14-0-0 and six Wine measures at £6-0-0. "The Whole to be Made of Copper of the Strength of the Piece Included and adjusted to the true Measures"<sup>22</sup>.

<sup>21</sup> Fairbanks, LAC, RG5 A1 vol. 75 (D40107)

<sup>22</sup> Helliwell, LAC, RG5 A1 vol. 75 (D40108)

## CHAPTER EIGHT- Makers of Upper Canada Inspectors' Measures

Levi Fairbanks was a resident of York and was listed in local records as a watchmaker in 1822 but shown as having a dry goods store in 1833 and later, a gunsmith in the village of Yorkville. He was responsible for supplying the weights. The Helliwells were owners of a brewery, a water-powered grist mill and a saw mill on the Don River at Don Mills. Their job was to supply the measures. It is not clear whether these men were to do the actual work or whether they were simply acting as agents. There are no documents that indicate who the actual makers were, although it is sensible to think that these individuals were equipped to do the jobs themselves. Several coppersmiths worked in Upper Canada at this time as we shall see. A few artisans in the area worked with metals and had the ability to work with copper and brass. Period newspapers show names of several craftsmen who would have been able to do the job.

At that time in the 1820's, finely made decorative wares and kitchen utensils were imported at relatively low cost from Britain. Coppersmiths in Upper Canada were not as skilled in making small items, nor did they find it profitable to make the finer pieces. Much of their work was done for local farmers, brewers, distillers and the military, especially the navy. They made the larger bulkier goods that would have been much more expensive to ship from England.

Copper, although some was mined in Canada, was not refined here. There was a moderate amount of imported copper available, some from the United States but most from Britain. Metal workers placed notices in local newspapers to advertise their businesses. Most included a request for old tin, copper or brass and offered to pay good prices for the scrap.<sup>1</sup> Much of this scrap metal was used locally, but a great deal of it was shipped to England or to the United States.

IMPORTED GOODS		EXPORTED.		
2 pipes	} Wine	737 bars	} Iron	
4 hhds		50 bbls.		
17 qr. casks		20 cwt.	8 casks	} Old Copper
2 bbls.		8 cases	2 cases	
14 cases		54 puns. Rum	15 bbls. Blacking	
2 hhds. Brandy		8 cases Molasses	29 boxes Glass	
4 hhds. Muscovado		41 hhds. Sugar	47 Grind Stones	
8 cases		78 bbls. } Tea	161 chaldrons Coals	
17 packages		11 boxes Chocolate	8 bundles Steel	
264 chests & boxes		4 bbls. } Raisins	108 Scythes	
11 boxes	90 boxes } Rice	2 Anchors		
4 bbls.	8 cwt. } 26 tierces	6 Arwile		
27 bags	5 boxes Capers	3 Grates		
50 cases Olive Oil	2 kegs Tamarinds	4 Iron Knees		
2 kegs Tamarinds	2 casks Cudbear	16 kegs Paint		
2 casks Cudbear	30 kegs Barley	8 bags Cotton Wool		
1 case Otto of Roses	6 tons } Logwood	77 bbls. Pitch and Tar		
418 pieces	5 cwt. } Lignum Vitæ	284 do Turpentine		
159 ps.	40 Still Bottoms	10 bbls. Rosin		
		4 Guns		
		10 cwt. Shot		
		8 qr. Casks } Gun-		
		62 kegs } powder		
		8 coils Cordage		
		1669 minots Salt		
		724 empty Casks		
		1 hhd. Verdigris		
		175 packages Merchandize		

EXPORTS AT GASPE.	
From 10th October 1826 to 10th October 1827.	
25 Vessels; 3310 Tons; 208 Men.	
9 hhds.	} Herrings
6 puns.	
83 bbls.	25 kegs
4 tierces	25 do Sounds
4 kegs	260 pieces Pine Timber
27600 cwt	21782 do Deals
4 pipes	930 do Deal Ends
84 hhds.	10521 do Staves & Heading
68 bbls.	72 do Handspikes
20 casks	69 do Spars
1 pun	3 cords Lathwood
9 bbls.	129 bundles Laths
15 bbls. Pickled Fish	1 ton Old Copper

Lower Canada Government Records-1828



From the Upper Canada Herald, Kingston 1827

The Montreal Herald of January 3, 1821 carried a list of exports from Montreal that included a category named "Old Copper". It listed "7 casks, 17 boxes, 11 pieces" as well as "8 boxes of manufactured copper."<sup>2</sup> In 1828, records from the customs house in Stanstead, Lower Canada, show imports of "8 casks and 2 cases of Old Copper". At Gaspé, 1 ton of "Old Copper" was exported. Similar amounts are recorded for Halifax in 1828 where imports of Copper amounted to "54 casks, 20 bundles, 55 cases, 310 bolts, 149 sheets, 97 cwts." On the other hand, 6 casks, 1 ton, 17 cwt and 1 box of copper were exported to Great Britain in that year.<sup>3</sup> There are very few examples of measures that remain from the first half of the 19<sup>th</sup> century. The recycling of metals by local coppersmiths and the large export numbers of the metal explains why there are so few to be found!

<sup>1</sup> Upper Canada Herald, Jan. 30, 1827

<sup>2</sup> Montreal Herald, January 3, 1821

<sup>3</sup> Appendix to the 38<sup>th</sup> Volume of the Journals of the House of Assembly, Lower Canada, 2nd Session, 13<sup>th</sup> Parl. 1828-9.

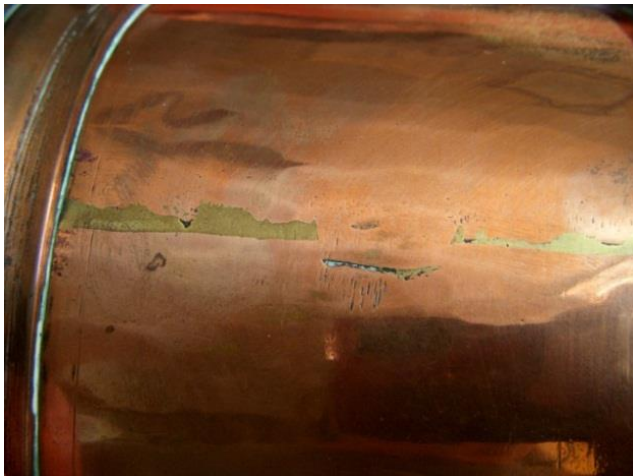
## Working Copper and Brass - Late 18<sup>th</sup> & Early 19th Century

Local Canadian metalsmiths in the 1820's were able to produce serviceable items of iron, copper and brass at a lower level of workmanship but with a lower cost than better-made imports.

In this period in Canada there were two basic ways to shape metal: hammering it, which was generally the work of a smith, and casting it, the work of a founder. The smith hammered a piece of copper or other metal into various shapes whereas the process of melting metal and pouring it into a mold was the work of the founder. The shape of the article to be made was probably the most important factor in determining whether the metal would be hammered or cast. A bowl, a tray, or a copper measure would generally be hammered from a sheet of copper whereas a candlestick, a bell, or a one-pound weight would be cast from molten brass.<sup>4</sup>

The gunsmith had the ability to cast metals such as brass to form the smaller, more intricate parts of a rifle or pistol. His work usually involved the making of firing mechanisms intended for pistols and long guns. Casting was accomplished by packing a small amount of dampened sand and clay into a mould. A pattern carved of wood was then pressed into the sand. Another sand-packed mould was placed on top and left to harden. When the halves of the mold were separated, the wooden pattern was removed which left a void in the mold. Channels were cut into the sand so molten metal would flow into the void. The mould was put back together and liquid metal poured in. When it cooled and became solid the mold was broken apart and the casting removed. With these skills a gunsmith and founder could use the same technology to make and repair many objects.<sup>5</sup>

A partial set of measures from the Midland District shows some details of their construction. An examination of several of these 1826 measures shows that four separate pieces of copper were used in their construction. The main body was made from a sheet of copper cut to the correct size, and then joined to make a cylinder by using flanges or tabs called dovetails. These tabs were joined and brazed together.



*A section of the 1826 half peck Midland measure. This shows the dovetail join on the side as well as the crude brazing. The wave-like marks were created when the flat piece of copper was rounded and shaped by hammering.*

<sup>4</sup> Colonial Craftsmen, Edwin Tunis, p.76

<sup>5</sup> Colonial Williamsburg Official History Site, James Geddy Foundry

The bottom of the cylinder also had flanges cut into dovetails which were bent and then brazed onto a disk of copper to form the bottom. These features are clearly visible on all the examples of the five Midland measures.



*View of the base of the same measure showing the dovetail and the brazing of the bottom.*

After hammering the bottom and the sides into the proper shape, the rims were fitted. The rims began as varying lengths of copper/brass ingots or shaped rods, the widths varying according to the size of the container. These “ingots” were rounded to the proper circumference, then cut, brazed together and placed around the cylinders. The rim tops were drilled through in three places and brass plugs inserted. All parts were then brazed together. Each measure was placed on a lathe and the two rims turned to remove excess metal. The dovetails, plugs and brazing are all clearly visible on each piece along with the marks that show the lathe work on the rims.



*Rim of the 1826 Midland Quart showing the peg in the rim and the mark of the lathe turning that shaped the rim.*



*This detail of the rim shows a rather neat join where the metal had been rounded, cut neatly to fit the top and brazed together. Small horizontal lines in the rim are from the final shaping of the rim by being turned on a lathe.*

The larger pieces needed to have handles attached to the body of the vessel. These items had to be cast separately then attached to the body. There are distinct marks that were left from the hammering that was done to fashion the copper into the cylindrical shapes of the bodies. A close look at the measures reveals blemishes that would not have been tolerated by an experienced artisan in Britain



*The handles on this half peck measure illustrate the crude attachment of the handles and the equally crude brazing of the dovetail. No British examples of this period exhibit such rough workmanship.*

## Who Were the Makers?

### Levi Fairbanks

The Fairbanks family has had a long relationship with New England, one branch developing into a maker of weights and scales in mid-19<sup>th</sup> century Vermont. The company is now known as Fairbanks-Morse. Levi, however, had no close connection to those scale makers. A genealogy of the family shows that Levi was born on October 13, 1793 in Enfield Massachusetts, far removed from Vermont. It further states that he “lived in Toronto, Canada”<sup>6</sup>

Levi Fairbanks is found on the 1819 list of inhabitants of York, (compiled in the previous year) with a male under 16, possibly an apprentice, living in the house. He was married on February 13, 1819 to Mary Ritter of Niagara. In a friend’s wedding announcement in 1822, Levi is listed as a watchmaker.<sup>7</sup> The York Commercial Directory of 1833-4 identifies him as a dealer in Dry Goods and Fancy items with a shop at 123 King Street. A few years later, in 1837 he had moved to Church Street and was again listed as a watchmaker. His wife, a milliner, shared the shop. Brown’s City Directory of 1846-7 indicates that he was a gunsmith in the village of Yorkville.<sup>8</sup> His ability as a gunsmith is proven by the first prize that he was awarded at an Exhibition of the Provincial Agriculture Association in 1846. He won first prize for the crafting of a rifle.<sup>9</sup>

Duncan Cameron’s choice of Fairbanks as the contractor is puzzling because there is no indication that he was familiar with the making of the weights he had been chosen to supply. His expertise at gunsmithing however, indicates that he would have been familiar with methods of casting metal objects, so it is quite possible that he had the ability to do the job himself.

<sup>6</sup> Genealogy of the Fairbanks Family in America, 1633-1897, Lorenzo Fairbanks, P. 221

<sup>7</sup> Marriage Bonds of Ontario, Thomas Wilson, 1803-1834,

<sup>8</sup> Brown’s Toronto Directory, 1846-7

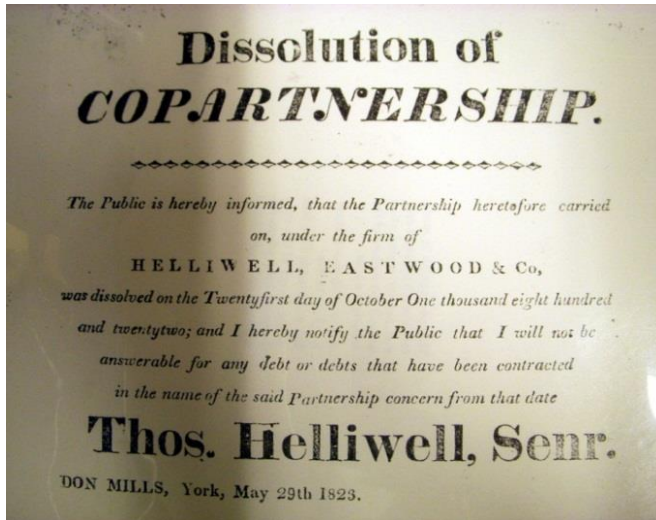
<sup>9</sup> The British American Cultivator, Vol. II, New Series. P. 342

## The Helliwells

Cameron's choice of the Helliwell brothers is easier to understand, since the families were prominent brewers and millers whose property in the Don Valley eventually developed into a small industrial complex that was named Todmorden Mills.

John Eastwood, had been a tinsmith and plumber in England,<sup>10</sup> but decided in 1815 to immigrate to Canada and open a trading business at Lundy's Lane near Niagara. His father-in-law, Thomas Helliwell Senior, (b. 1769) a mill owner in Todmorden, England, followed with his wife and three sons to the area in 1818 and entered the distillery business. It is interesting to note that English laws limited the emigration of men with skill in the trades. "Thomas made his plans and left England clandestinely, as skilled men were not allowed to emigrate."<sup>11</sup>

Three years later, in 1821, he and Eastwood bought ten acres of land in the valley of the Don River near York where they built a grist mill and a brewery. Shortly after they arrived in the valley they advertised the establishment of a "tin manufactory for all types of tin ware." John Eastwood had been trained as a tinsmith, plumber and glazier in England as had one of Thomas Helliwell's sons, John.<sup>12</sup> Another reference states that they also set up a "tin factory which was in great demand as good craftsmen like John Eastwood were hard to find."<sup>13</sup> At the same time the brothers John and Joseph "were running a tin-smith business in Little York"<sup>14</sup>



It is not known why the partnership with Eastwood ended, but a notice in a York newspaper declared that a "Dissolution of Partnership" was signed "Thos. Helliwell, Senr. Don Mills, York. May 29th, 1823".<sup>15</sup> It is probable that Helliwell knew that he was terminally ill and was simplifying his estate. He died on July 11<sup>th</sup>, 1823.<sup>16</sup> The brothers, Thomas Jr., Joseph and John became the managers of the enterprises.

The estimate for making the measures must have been written around the same date (Dec. 9, 1825) as the Fairbanks estimate. It was signed "Thomas & J. Helliwell", the J. was initial letter of Joseph. A later receipt issued to Duncan Cameron

acknowledged payment for a set of copper measures for the Newcastle District. The same signatures are on this later document which is dated September 1<sup>st</sup>, 1826. The York Directory for 1833-4 listed "Helliwell, Thos. & Joseph, Brewers in the Market-square"<sup>17</sup>

There is no direct evidence that shows the identity of the actual makers of the measures and weights. It makes sense, however, that since the Helliwells were given the job of supplying the measures, it was probably because John Eastwood had the facility for producing them in his "tin" factory, using copper rather than tin. The same argument could be made for the brothers John and Joseph who were trained tinsmiths as well. John drifted away from his brothers around the 1840s and was not found in later references about the business.

<sup>10</sup> Todmorden and Walsden, by Hargreaves and Briggs, [Freepages.genealogy.rootsweb.ancestry.com/~todmordenandwalsden/home.htm](http://Freepages.genealogy.rootsweb.ancestry.com/~todmordenandwalsden/home.htm)

<sup>11</sup> Ibid p. 51

<sup>12</sup> A Mill Should Be Built Thereon, Eleanor Drake, p.53

<sup>13</sup> Op.cit., Hargreaves p.2

<sup>14</sup> Op.cit. Drake p. 67

<sup>15</sup> Op.cit. Hargreaves p.4

<sup>16</sup> Ibid p.5

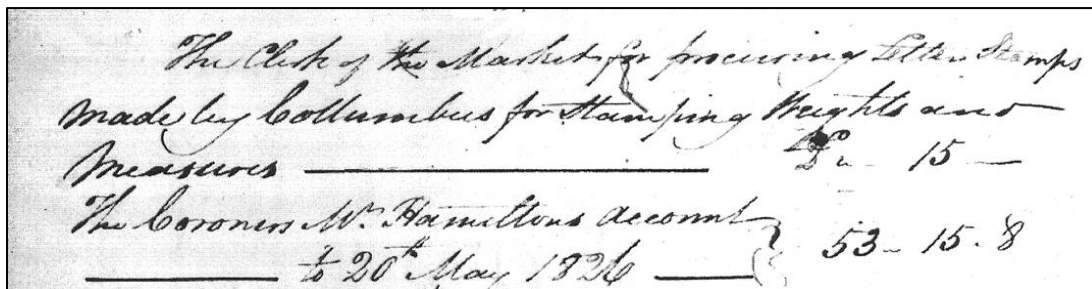
<sup>17</sup> York Commercial Directory, Street Guide and Register, 1833-4, publ. Walton

## Other Coppersmiths in York

There were other craftsmen in Upper Canada who had the ability to produce these relatively simple items and who lived and worked in towns close enough to York to have been considered for the job. The following men fall into this category.

### Isaac Collumbes

An artisan who lived in York and who had a thriving metalworking business at this time was Isaac Collumbes, (sometimes written Columbus or Collumbus) who was born in France in 1741. He moved to Quebec in 1790 where “he was armorer to the military and where he was married.”<sup>18</sup> He moved to York in 1804 with his wife and three children. He was armorer for the garrison during the 1812 war during which he made swords and repaired rifles for the officers<sup>19</sup>. He was a cutler, silversmith, gunsmith and locksmith. He repaired scientific instruments and even made and fitted false teeth.<sup>20</sup> In an 1824 advertisement he stated that he could make and repair the iron runners of an iceboat.<sup>21</sup> His premises were larger than he needed for his own use because there are references to parts of his house being rented out for other business offices.<sup>22</sup>



*From Minutes of the Quarter Sessions, May 20, 1826*

Another of his talents is recorded in the Quarter Sessions of May 20, 1826. The clerk of the Market charged 15 shillings for procuring “Letter Stamps made by Collumbes for stamping weights and measures”.<sup>23</sup> Collumbes most certainly had the talent and expertise with which to make the measures, but there are no records that connect him to the project. It must be noted that he was 85 years old by this time.

An interesting side story concerns his daughter Harriet who married a Mr. Robinson of Toledo Ohio. The 1893 World’s Fair Commission at Chicago “made herculean efforts to induce her to attend the Columbian Exposition as a descendant of the famous navigator. She steadfastly refused, notwithstanding the fabulous sums offered her as expenses, salary, and entertainment fees”.<sup>24</sup> The family never claimed to be related to the explorer

<sup>18</sup> Simcoe County Pioneer and Historical Society, Barrie Ont. 1908, P.99

<sup>19</sup> Toronto of Old, Henry Scadding, Publ. 1878, P.182

<sup>20</sup> Scadding, P. 185

<sup>21</sup> Legion Magazine, Article: Hard-water Sailing, Mar.1, 2002

<sup>22</sup> Travel and Traditions, T.O. History Revisited, - the most Haunted Corner, Bruce Bell, p.2

<sup>23</sup> Home District Quarter Sessions, June 1826, RG22-95 (MS 251, Reel 6) Ont. Arch.

<sup>24</sup> Ibid, Simcoe County—p. 100





Toronto Archives

*This house was a large building and had been the first home of the Jarvis family. Collumbes bought it in 1824 and used it as a home and workshop with space to rent out for other businesses. It was turned into a Customs House shortly after Collumbes moved out in 1832*

*It still survives today in much altered form at the corner of Sherborne and Adelaide Streets in Toronto.*

## John Lockwood

The Upper Canada Gazette carried a notice on June 11, 1821 that John Lockwood had established a "Tin & Sheet Iron Manufactory" at the corner of King and Duke Streets. No other information is known about this businessman and whether he worked with copper, and so it is not known if the enterprise succeeded.<sup>25</sup>

There were probably other coppersmiths in the town in 1825, but no records have been found for that year. A York directory for the years 1833-4 shows that several coppersmiths and brass founders were working in York at that later time. There is no evidence that any of these men were resident in the town in 1825.

**NEW ESTABLISHMENT.**  
**TIN & SHEET IRON MANUFACTORY.**  
 THE Subscriber begs leave to inform the inhabitants of the town of York and its vicinity, that he has commenced the above business in the building directly opposite Mr. Thomas Duggan's Store, corner of King and Duke Streets, where he will keep on hand a large assortment of  
**TIN WARE,**  
 Which he will dispose of on as reasonable terms as can be purchased at any other Manufactory in the Province. He trusts that his work will be such as to produce general satisfaction, and that by strict attention to his business he will merit a share of public patronage.  
**JOHN LOCKWOOD.**  
 York, May 30, 1821. 15

## Coppersmiths of Niagara

### Henry Rogers and Jonas Kinne

The region along the Niagara River developed its pioneer industries earlier than most of Upper Canada. Henry Rogers had a tinware business in Newark according to an advertisement in the Upper Canada Gazette in October of 1797. Jonas Kinne who was associated with Rogers, advertised in the same newspaper, that he "makes all kinds of Tin and Brass Ware" and "makes copper, brass, tin and iron ladles and scummers". He also "will receive old copper and brass in payment and will give cash for them". Although they seem to have had the ability to produce the measures, it does not appear that they were in business in the 1820s.

**FOR SALE**  
 by *Henry Rogers,*  
 At Mr. WHITING'S Shop, a general assortment of  
**TIN WARE,**  
 Which he will dispose of at a lower rate, than it can be imported for.  
 Newark, Sept. 29, '97.

THE Subscriber, at present resides with Mr. Rogers, at Mr. Whiting's Shop, in Newark, and wishes for employment. He makes all kind of TIN and BRASS Ware; mends and repairs such as wants mending; makes copper, brass, tin and iron ladles and scummers, and keeps an assortment of them on hand. He also tins old copper ware and mends stills, mill worms, coffee mills, brass kettles, &c. all in the neatest manner, and on the most reasonable terms.  
 He will receive old copper and brass in payment, and will give cash for them.  
 O. C. K.  
**JONAS KINNE.**

*Upper Canada Gazette Oct. 4, 1797*

<sup>25</sup> Upper Canada Gazette, June 11, 1821, p.68

## John Thompson

The Spectator of St. Davids on October 25th, 1816 carried a notice that J. Thompson had commenced the manufacturing of tin and sheet iron at his shop in Lewiston. He too requested "old pewter, brass and copper in exchange for ware".

## John Brown & Andrew Thompson

An advertisement in the Colonial Advocate of September 30, 1824 stated that a "Copper, Sheet-iron, and Tin-ware Factory" was in operation in the Village of Chippewa and was operated by Mr. John Brown. By January of 1826, the ownership had changed, and Andrew Thompson was the proprietor. He advertised that he made "copper stills, copper worms and steam boilers for distilling".<sup>26</sup> His ability to make these items indicates that the same techniques could be used to make both the measures and the weights.

Andrew Thompson was the name of one of the Ensigns who was among the officers captured by the U.S. forces at the battle of York in April of 1813. Presumably they were the same person.

**TIN & SHEET IRON  
FACTORY.**

**T**HE Subscriber respectfully in-  
forms the Inhabitants of Lewiston,  
and its vicinity, that he has Commenced  
the Manufacturing of Tin & Sheet  
Iron, in its various branches, at his Shop  
in the village of Lewiston, where he in-  
tends to keep on Hand and for Sale,—  
**A general Assortment of  
TIN & SHEET IRON  
WARE,**  
Which he will sell as low for Cash, as  
can be Purchased in the Western  
Country.  
Any Persons wishing to Purchase,  
will do well to call and examine for  
themselves.  
Old Pewter, Brass and Copper, ta-  
ken in Exchange for Ware.  
**J. THOMPSON,**  
Lewiston, May 17, 1816.

*The Spectator, Lewiston, May 1816*

**UPPER CANADA  
COPPER, SHEET-IRON, AND  
TIN WARE FACTORY;  
VILLAGE OF CHIPPAWA:**

**W**HERE will be kept on hand for sale, or  
made to order, Copper Stills, Steam Boil-  
ers, for distilling, Copper Worms; Brewers' Cloth-  
iers', Hatters', and Wash Kettles Sheet-Iron  
Cylinders, Stove Pipes, and Tin Ware; as low  
as they can be had in Buffalo or Rochester, adding  
charges, viz Duties, &c.

ALSO—A number of one and two horse Plea-  
sure and Lumber Wagons and Sleighs.

Orders addressed to Mr. John Brown,  
will be promptly attended to.

Chippewa, October 15, 1824. 16-17

*Colonial Advocate, Chippawa, 1824*

**UPPER-CANADA  
COPPER FACTORY,  
VILLAGE OF CHIPPAWA,**

**W**HERE will be kept on hand for  
sale, or made to order,  
Copper Stills and  
Steam Boilers for Distilling,  
Copper Worms,  
Brewers', Clothiers', Hatters' and  
Wash Kettles,  
Sheet Iron, Cylinders, &c. &c.

**ANDREW THOMPSON.**  
Chippawa, Jan. 17, 1826. 58—17

*Colonial Advocate, March 30, 1826*

<sup>26</sup> Colonial Advocate, March 30, 1826, Canadian Library Association, FM.846 046 c.2, Ont. Archives.

## A. Beach and Co. Black Rock

An advertisement in the Gleaner of April 2, 1825, announced the opening of a "tin and sheet iron manufactory" on Queen Street in Niagara., "where they will constantly keep for sale a General Assortment of Articles in their Line". In the middle of June of 1825, another ad was placed in the same paper announcing that A. Beach and Co. has opened a "Tin Manufactory in the Town of Black Rock" (a village on the U.S. side of the river, just north of the present-day Peace Bridge)

The Erie Canal had just been completed and so the Buffalo area was connected by the new waterway to New York City.

## John Wagstaff

John Wagstaff of Niagara had a thriving tinsmithing business that was first advertised in the Niagara Herald on August 1<sup>st</sup>, 1801. By 1817 he was working with copper, sheet-iron and silver. In 1825 he advertised that he had a brass foundry as well.<sup>27</sup> He went through a serious questioning of his loyalty to the Crown and to Upper Canada during the War of 1812, when he travelled illegally to the U.S. He was accused of treason and had his property confiscated, although he was exonerated of the charges in 1819.

His business had been burned in the fires set by the American troops in 1813. After his trial, his home and store were rebuilt on Newark's Queen Street near the market. It is possible that his chequered reputation would have created some antipathy from the war veterans, many of whom were in political office in York at the time of the American invasion.

A more complete discussion of John Wagstaff is found in Chapter 5.

**TIN WARE.**

**JOHN WAGSTAFF**

**H**AS opened a tin shop near Mr. Daily's, where he makes all sorts of tin ware. He will keep a general assortment on hand, that may be furnished on demand, and such as may be required of a particular description will be made on short notice. The prices will be low, and prompt payments required. Persons favoring him with their custom will have his grateful acknowledgements.

*Niagara, August 1.*

*Gleaner and Niagara Newspaper - Dec 17, 1825*

**BLACK ROCK  
WHOLESALE & RETAIL  
PLAIN & JAPANED  
Tin Manufactory**

—XX—  
**A. BEACH AND CO.**

**R**ESPECTFULLY inform the Inhabitants, Merchants & Pedlars in the vicinity of Black Rock, that they have opened an establishment in this place, where they offer for sale, as low as can be purchased in this section of the country, the following articles:—

*Christalized, Japaned  
and Plain*

**Tin Ware;**

Tin Plate, Sheet Iron, and Wire;  
**Keg and Canister Powder,**  
*of the first quality.*

Will be received in exchange for ware,  
**Old Copper, Brass and  
Pewter, Rags, Feathers  
Deer Skins, Fur  
& Beeswax.**

N. B. — All orders will be promptly  
attended to  
*Black Rock, June 7, 1825.*

*Gleaner and Niagara Newspaper July 23, 1825*

**NIAGARA TIN WARE FACTORY  
AND  
BRASS FOUNDRY,  
ON QUEEN STREET,  
NEAR THE MARKET.**

**JOHN WAGSTAFF**

**R**ETURNS sincere thanks to all his numerous Customers, for the very liberal support he has met with since he commenced business in this place—and has the satisfaction of informing them, that he is now enabled to carry on his business very extensively, all orders in his line will be thankfully received and punctually attended to.

The following articles kept constantly on hand for sale at Very reduced Prices, Plain and Japaned Tin Ware, (comprising a complete assortment, Sheet Iron Stoves and Pipes, Sheet Iron Bread Pans Double Sheet Iron Cooking Stoves, Kettles for boiling sugar, and Bellows' Pipes, Cow Bells, & Sleigh Bells, Copper Plates for boot heels, &c.

Old Brass, Copper and Pewter, taken in exchange for any of the above work, at 1s. 4 N.Y. C<sup>y</sup> per lb. Beeswax 2s. N.Y. C<sup>y</sup>. Merchants and Traders will be supplied with Tin Ware, Sleigh and Cow Bells at whole sale Prices, on a Credit of three to six months.

Also the following articles for prompt pay. Tin Plate by the box and Sheet, Sheet Iron do &c Iron Wire, Tined Rivets, Rosin, Borlead and Balls, Braziers' Rods, Japan and Copal varnish Scales Beams, and Lead Weights, one L<sup>g</sup>: Double Stove, Porash Kettles, Dutch Ovens, Siew Pans, Dog Irons, Pots, Spiders, &c

N. B. — Repairing done on short notice, and Glass Cut to any size or pattern.

*Niagara, December 1st, 1825. 3 tf*

*Niagara Herald - September 19, 1825*

<sup>27</sup> The Gleaner and Niagara newspaper, Dec. 17, 1825

## Buffalo and Black Rock

In 1825, a census<sup>28</sup> of these towns revealed that the population had grown very quickly since the retaliatory destruction of the two towns by the British in 1813. Buffalo had 2412 people in 1825 while the smaller town of Black Rock to the north and on the Niagara River, had 1039 people. There were three coppersmiths with businesses large enough to employ sixteen other workers or apprentices.<sup>29</sup> A lively trade with Upper Canada existed with daily ferries across the river from Black Rock to Fort Erie. The Erie Canal opened in 1825 and caused a sudden rush of trade that created rapid growth of the two towns. Prices of goods declined due to the efficiencies of the new canal system. A daily steamship route between Newark (now Niagara-on-the-Lake), near Niagara Falls, and York was soon established. A common complaint of the tradesmen and storekeepers in York was that people began to buy their furnishings and other necessities from Buffalo because of the lower prices.<sup>30</sup>

It would have been easy to have had the weights and the measures made in New York City, Buffalo or any manufacturing town along the canal and then transported to York. However, Duncan Cameron and other people who fought in the 1812-14 war against the U.S. probably had negative feelings and might have denied any U.S. involvement. More importantly, this was a government project, so giving the job to someone outside of the country would have been politically wrong!

The distance from York and the official standards that were locked away in the Secretary's office would have been a problem for makers from the Niagara area. They would have had to check their work with the standards in York to ensure their accuracy. That would have meant a several costly trips to York.

## Kingston

The town of Kingston had been the base of the British Navy and had attracted numerous skilled workmen to build the ships required to patrol Lake Ontario. Sheet copper had been used to sheath the hulls of ships, so coppersmiths had lived in the town for many years.

**James Meagher** moved to a new house in April of 1819 and informed the public that he would "carry on the Tin, Copper, & Sheet Iron Manufactory" at that new address.<sup>31</sup>

**Caleb Price** in April of 1826, advertised that he was a "Tin and Sheet-Iron worker" and could be paid with "old copper, Brass, Pewter and Bees Wax".<sup>32</sup>

**J. Watkins** in January of 1827 advertised in the "Herald" that he wanted "2 tons of old copper and brass for which cash will be paid". It continued, "brass castings of all descriptions furnished on the shortest notice". However, there is no indication that his business was established before 1826.

The distance from Kingston to York could be covered in a day either by ship or by stagecoach. It was quite possible for a York client to obtain the weights or the measures from a foundry in Kingston.

**NOTICE.**  
**JAMES MEAGHER.**

**R**ETURNS his most sincere thanks to the people of Kingston and its environs, for the liberal encouragement he has met with since his commencing business. He begs leave to inform his friends and the public, that he is about REMOVING to his NEW HOUSE near the Market Place, opposite to Mr. Bayman's, and will, as usual, carry on the

**Tin, Copper, & Sheet Iron Manufactory.**

*Horse Shoeing & Blacksmith Work, will be executed in the best manner, at the shortest notice, and on the lowest terms.*

Kingston, March 9, 1819.

*The Upper Canada Herald April 6, 1819*

**CALEB PRICE,**  
**TIN & SHEET-IRON**  
**WORKER,**

IN ALL ITS BRANCHES,

**B**EGS to inform the Public in general, that he has taken the Shop in Storr Street, next door East of Mr. Orange Hayes, and opposite to Mr. Carroll's Shoe Store, where he will have a constant supply of

**EVERY ARTICLE IN THE ABOVE LINE,**  
AND AT REDUCED PRICES.

Great allowance made to Country Merchants.

N. B.—Old Copper, Brass, Pewter, and Bees Wax, taken in payment.

Kingston, April, 1826.

*Upper Canada Herald - April 4, 1826*

<sup>28</sup> Publications of the Buffalo Historical Society, 1879, "Buffalo in 1825", Page 143

<sup>29</sup> Ibid p. 143

<sup>30</sup> Town of York - Firth, P. 54

<sup>31</sup> Upper Canada Herald, Kingston, Apr.6, 1819

<sup>32</sup> Op. cit., Apr. 4, 1826

## Montreal and Quebec City

The cities of Quebec and Montreal developed an industrial base much earlier than the towns in Upper Canada. Their earlier settlement along with their access to the sea helped them to become thriving trading centers in the 18<sup>th</sup> century. Artisans in the various trades were able to fill a need for wares that could be made more cheaply in Canada than the costly imported goods. An early directory of the city of Quebec was printed in 1790<sup>33</sup> and showed that there were some thirty-eight blacksmiths, seven tinsmiths, seven silversmiths, three armourers, three gun-smiths, two cutlers, a copper-smith, a brazier and a watchmaker. It can be safely assumed that these kinds of businesses continued into the next century and would have been able to produce the weights and measures of our study. Montreal had at least three

**WISELY & MOORE.**  
COPPER-SMITHS, PLUMBERS, GILDERS, &c.  
(FROM LONDON.)

**B**E<sup>G</sup> leave to inform the public in general, that they have commenced the above business, next door to Messrs. STANFELD, & Co. St. Lambert street.

Steam Engines, for warming of dwelling Houses.  
Water closets, made and fixed  
Copper, brass, and leaden pumps, do.  
Leaden pipes made for water works  
Stills, worms, &c.  
Leaden Coffins, made at 19 hours notice  
Watches, chains, officer's sword handles, gorgets, medals, &c. gilt and burnished.  
Coppers, boilers, and cooking utensils Tinned and repaired.

N.B. The above steam Engine, will answer the purpose for cooking, washing &c. and as no other stoves are required, a considerable saving of fuel, without any risk, will be found. The heat may be increased to any degree that may be required. They can be made to suit houses of the largest size.

Old copper, brass, Pewter, lead & metal, Bought.

Montreal, July 13, 1815.

Montreal Herald, September 9, 1815

firms that would have been able to make those items. Coppersmiths by the name of "Wisely and Moore" advertised in the Montreal Herald in July of 1815.<sup>34</sup> Their advertisement makes it clear that they had the ability to cast weights as well as being able to make the measures.

Two firms with ads in the Herald in 1821 appear to have been able to do the same. In January, "Bennet, Briggs and Burt, Brass Founders", and later that year, "Woolfe Street Foundry" had

notices saying that they could cast in brass.<sup>35</sup> Even Duncan Cameron recommended that "for Brass Scales and Beams you will do well to send to Montreal where they may be had of any description." (From a letter to the Inspector of Measures of the Newcastle District, who had asked Cameron for beam scales, May 1827)<sup>36</sup>

**WOOLFE STREET FOUNDRY.**  
Quebec Suburb.

**T**HE Subscriber respectfully informs the public, that the above establishment has commenced its operations, where all kinds of CAST IRON and BRASS CASTINGS will be executed to any Pattern or Design, of any Dimension; and on hand, a great variety of the most improved Patterns of Cast Iron Ploughs,

JAMES SPENCE.

Montreal, Nov. 10, 1821.

Montreal Herald of November 17, 1821

**Bennet, Briggs & Burt,**

**R**ESPECTFULLY beg leave to inform the Inhabitants of Montreal and of Upper and Lower Canada, that they have commenced business as  
**Blacksmiths, Brass Founders & Mill-Wrights,**  
In Piquet Street, Quebec Suburb, opposite the Premises occupied by Judge Reid, where they will undertake all kinds of work in the above line.

ALSO,  
To make and repair Steam Engines, all descriptions of Fire Engines, and other pieces of Mechanism, usually made in their line of Business, on the most approved construction, and at the most reasonable rate. For further particulars, apply as above.

Montreal, 26th Feb. 1821.

Montreal Herald of January 6, 1821

<sup>33</sup> Directory for the City and Suburbs of Quebec, Hugh Mackay, Herald Printing Office, 1790.

<sup>34</sup> Montreal Herald, Sept. 9, 1815

<sup>35</sup> Ibid, Nov. 17, 1821

<sup>36</sup> Letter to Duncan Cameron, May 18, 1827, From J. Woolstencroft, Inspector of Weights and Measures, Newcastle District

## Conclusion

Our investigation suggests that there were several firms in Canada that had the facilities for the manufacture of these items. The possibility that they were made in the U.S. can be discounted because of the recent war and the memories of the pillaging and burning of their towns by the American troops.

The Helliwells had a tinsmithing business which could easily have been adapted to make the eleven sets of copper measures. It is most likely that those Wine and Winchester measures were made in York by this family.

The production of the weights would have been more difficult to do in early York. The smaller sizes would have been easy to make, but those of 13, 26 and 52 pounds would have been difficult to cast in a small foundry. All castings had to be turned on a lathe to trim the excess metal left from the casting process. The larger weights would have demanded somewhat larger machines for that job. The rims on the measures have marks that show that they also were turned on a lathe.

Isaac Collumbes was a talented metalsmith and could have done the casting of the weights in his earlier career, but he was 85 years old in 1826 and the few references to his work at this time suggest that he was reduced to doing smaller jobs.<sup>37</sup> It is quite likely that he had a metal lathe in his shop. The York Commercial Directory of 1834 lists him still in business as a gunsmith, with a shop on Duke Street. He would then have been 93 years old.<sup>38</sup> He died in 1846 "at the venerable age of 105 years".

Fairbanks might have had the expertise to make the weights, however the records do not show that he had the facilities - unless of course he joined Collumbes and used his shop for casting and then finished them at the Helliwells' shop. There was no other brass founder listed in York at this time, who could have done the work.

Makers in the Niagara and Kingston areas would have had the problem and expense of travelling to York to refer to the official examples there.

There were at least three foundries in Montreal at that time, so a Lower Canada maker could have made the trip to York for one thorough inspection of the official standards there to take accurate measurements for making the moulds needed. The transportation of the finished product could have been shipped up the St Lawrence to Kingston and on to York in a matter of three or four days.

The probability is that there were merchants in Montreal who imported sets of weights from England. They would have been available to Fairbanks via the St. Lawrence River. Those could have been easily adjusted to the proper weight using the DeGrave standards in York as reference, since each weight had a cavity in the base where lead could be added or removed to bring the weight to the proper size.

No conclusive evidence has been found to determine who or what firm produced the 1826 District measures or weights. Until firmer evidence is found, it is most reasonable to speculate that the weights were supplied to Fairbanks from Montreal brass founders while the measures were fabricated in York by the Helliwell firm.

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<sup>37</sup> Appendix, Journal, House. of Assembly, U.C., 1833, No.2, Detailed Accts. --Insp General's Office, 2nd Feb. 1831, Accts, Columbus --for smith's work

<sup>38</sup> York Commercial Directory and Street Guide for 1834, G. Walton, York Upper Canada, p.33

## George IV Merchant's Measure – Between 1824 -1830

This example measures 9  $\frac{3}{4}$  inches high, 6  $\frac{1}{2}$  inches across the bottom and contains exactly one Wine gallon. The British law that instituted the Imperial System and made the old Wine measurement illegal in Britain was enacted in 1824 but not instituted until 1826.<sup>39</sup> If it had been made and used in the British Isles, it would have been in the years between 1820 and 1826. The law in Britain at that time decreed that the mark would be placed once only on the upper rim. Upper Canada legislation enacted in 1823<sup>40</sup> stated that the inspector was “to mark, stamp or brand the same (if a measure) as near the two ends, or top and bottom as may be, G. IV. R.” Neither Britain nor any other British possession had that specific rule. This example has the marks in the positions that the Upper Canada law dictated. It must therefore be from Upper Canada, dating between 1823 and 1830. George the Fourth died in 1830.

**This is the only pre-Confederation working measure from Upper Canada that is known to exist.** It has a diagonal joint which suggests that the maker might have used pieces of sheet copper salvaged from a previous job. The re-use of old tin and copper was common at that time in Canada because, as we have seen, the cost of importing metals was quite high.



GIVR Impressed at Top and Bottom



Side View Showing Seam

E. Little Collection

<sup>39</sup> U.K. Weight and Measures Act, 1824, 5<sup>th</sup> George IV. Cap. 74

<sup>40</sup> Statutes of Upper Canada. 4<sup>th</sup> year, Geo. IV, 1823, Third Session, Chap.XVI, Section IV



Close-Up of Top Mark

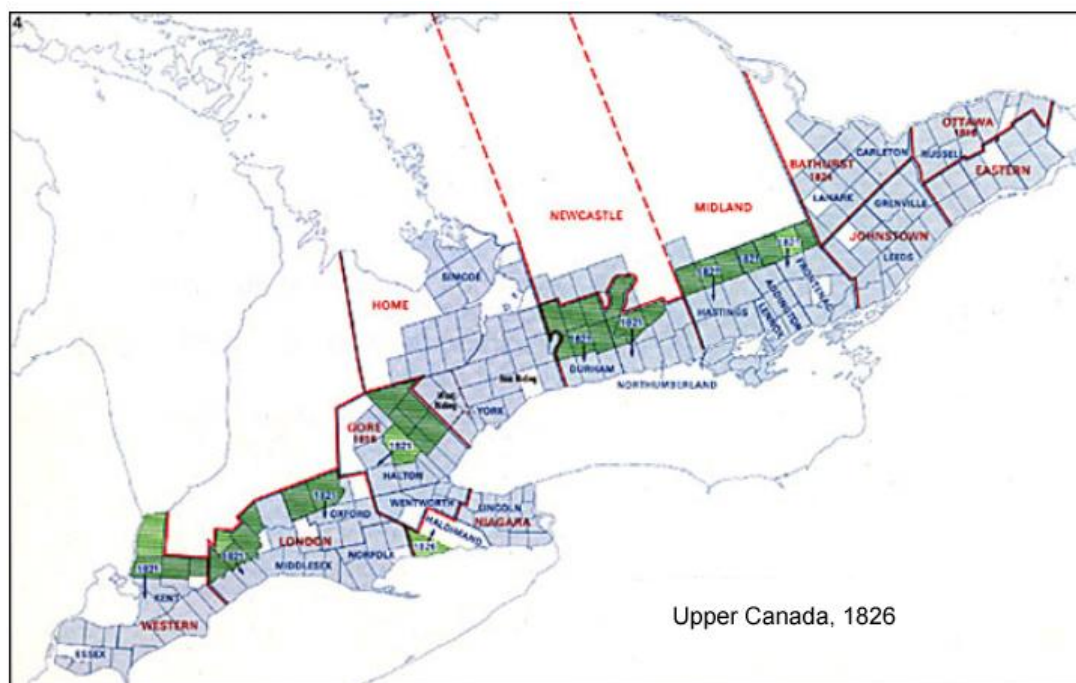


Close-Up of Bottom Mark



## CHAPTER NINE- Quarter Sessions Records – 1826 to 1830

The 1823 law ordered the magistrates of each district to request and pay for a set of weights and measures from the Provincial Secretary. (Section III of the Act) Some magistrates contacted Cameron's office soon after they read the new law, while other Districts with fewer settlers - and consequently with less money available, held off for some months. Eleven districts were in existence when this law was passed in January of 1825 as shown in the map below.



### Ottawa District

The Magistrates of the District of Ottawa gathered at Longueuil in January of 1825 to discuss the recent Weights and Measures Act. In a letter, dated January 12, 1825, the magistrates of the District ordered the Provincial Secretary “to furnish the said District of Ottawa with a true standard of the following weights and measures.”<sup>1</sup> It then listed four corn measures (usually called Winchester measures), six wine measures and seven avoirdupois weights from four pounds to a half-ounce, omitting the three larger Winchester measures and the three larger weights of 56, 28, and 14lbs. The magistrates had concluded that they were able to choose only the items that they considered to be necessary, probably by misinterpreting the line in the law that said “- as may be required by the said address”.<sup>2</sup> In fact, the Provincial Secretary had ordered much larger sets from De Grave in London, which were the basis for the sets to be made available to the Districts.

More than a year later, on July 22<sup>nd</sup>, 1826, Cameron wrote to the Ottawa District Clerk of the Peace and indicated that the cost of the measures and weights was 45 Pounds 15 Shillings.

The magistrates responded, this time from Hawksbury, on September 27<sup>th</sup> with the following. “Their worships wish to be informed whether the amount specified in your letter is for those articles only (*the list from the 1825 letter*) or for a complete set, which would comprise a number of weights and measures considered by their Worships as superfluous in our limited population, and too

<sup>1</sup> Archives Canada, RG5 A1 Vol. 70 (Page No. D37059)

<sup>2</sup> Statutes of Upper Canada, 4 Geo. IV, 1823, Third session, Chap. XVI Section 3

expensive for the scanty funds of the District”.<sup>3</sup> The magistrates’ objection is quite understandable when it is remembered that money from this District was made available to purchase weights and measures in 1818, which might already have been acquired. (See page 39). On January 13, 1818 an entry in the Ottawa District minutes “ordered that the Treasurer of this District do pay out of the money in his hands, a sufficient sum to purchase waits & measures as a standard for this District.”<sup>4</sup>

Levi Fairbanks received 25 pounds and 10 shillings for a “sett of brass weights for the Ottawa District” on July 3rd, 1826. The cost included ten shillings for a wooden box.<sup>5</sup>

The magistrates demonstrated their displeasure by holding their money until 1834 when they finally made a payment of 35 pounds - leaving ten pounds of the account unpaid.<sup>6</sup>

## Eastern District

On April 28, 1826 the minutes of the Quarter Sessions of the Eastern District recorded that “the Standard weights & measures now in the Hands of the Provincial Secretary at York may be applied for from York for the use of this District and that the expense of the same be ascertained that money may be kept in the Treasurers hands for defraying the amount thereof “.<sup>7</sup>

A receipt from Duncan Cameron made out to Levi Fairbanks shows that the weights for the Eastern District were shipped on the 3<sup>rd</sup> of July in 1826. Cost was 25 pounds 10 shillings.<sup>8</sup> The measures were billed separately at a later date, for 20 Pounds

The public accounts for 1834 show that the Eastern District finally paid 35 pounds for the items in that year, ten pounds less than the cost and ten years late. It is likely that the District had discussed the matter with the Ottawa officials.

## Johnstown District

Mr. D. Breakenridge, Chairman of the Court of Quarter Sessions for this district, sent a letter to the Lieutenant Governor in York on November 12<sup>th</sup>, 1825, asking the Provincial Secretary to “furnish this District with a Standard of such Weights and Measures as are deposited with him, to be paid for out of the District Treasury”.<sup>9</sup> This request was premature since the law had been passed in March, and there was no chance that the measures could have been made so quickly. No reply was sent to him but on November 24, the letter was referred to Cameron asking him to “take the necessary steps accordingly in this case”<sup>10</sup>

At the District Quarter Sessions of May 15<sup>th</sup>, 1827, chaired by Breakenridge, it was “Ordered that the Treasurer do pay the Provincial Secretary the sum of fifty pounds and ten Shillings for the purpose of defraying the expense of a set of Standard weights and measures for the District of Johnstown and what further sum may be required for that purpose.”<sup>11</sup> One of the magistrates at that session was Adiel Sherwood. The following day his name appears again. “Adiel Sherwood of Brockville Esquire, is appointed Inspector of weights and measures for the District of Johnstown.”<sup>12</sup> He was sworn in on the following day.

The receipt for the weights and measures was signed by L. Fairbanks and dated July 3, 1826.

<sup>3</sup> LAC, RG5 A1 Vol. 79 (Page No. D42710)

<sup>4</sup> LAC, RG22 Series 65, MS 697 Reel 1

<sup>5</sup> LAC, Receipt from D. Cameron to Levi Fairbanks for Ottawa W&M., July 3, 1826

<sup>6</sup> Appendix, Journal of House of Assembly of U. Canada ,1<sup>st</sup> Session of 12<sup>th</sup> Provincial Parliament, 1834, page 20, Public Accounts

<sup>7</sup> LAC, Minutes of the Quarter Sessions, Eastern Dist. 28<sup>th</sup> April 1826, P. 489, Record Group 2 Series 7, Microfilm MS 413, Reel 2, [103324-1]

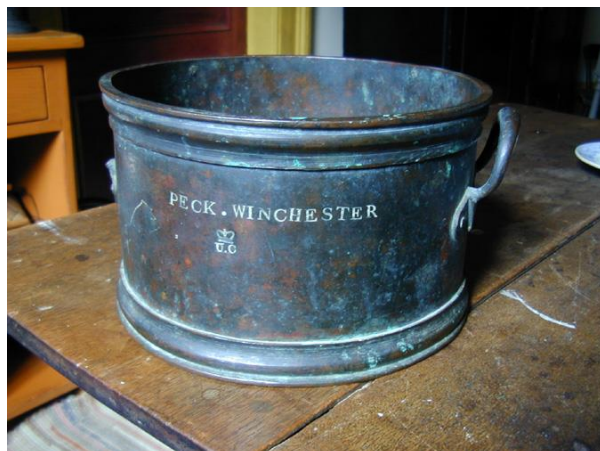
<sup>8</sup> LAC, Receipt from D. Cameron to Levi Fairbanks for Eastern District W&M., July 3, 1826

<sup>9</sup> LAC, RG 5A1 Vol. 75, Nov. 12, 1825, [39768]

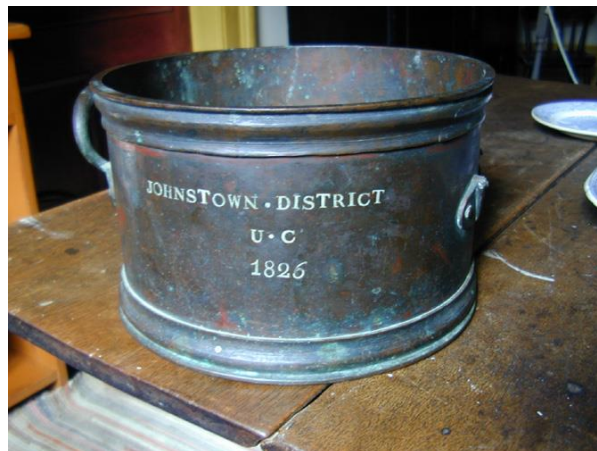
<sup>10</sup> LAC, RG 5A1 Vol. 75, Nov. 24, 1825, [39972]

<sup>11</sup> Minutes, Johnstown District Quarter Sessions, May 15, 1827, Ont. Archives, Microfilm reel 105121-1, MS699, Reel 1

<sup>12</sup> Ibid



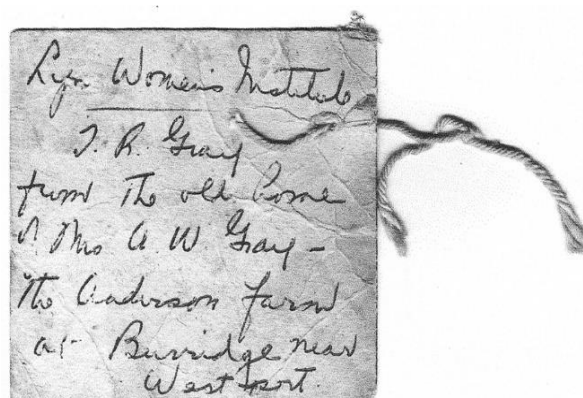
*Johnstown Winchester Peck Measure, 1826*



*Private Collection*

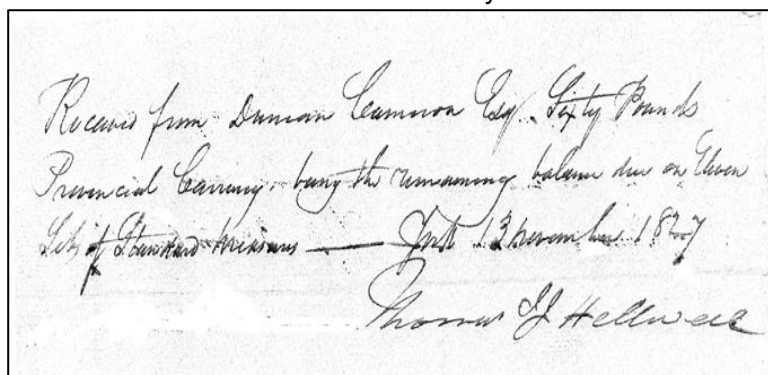
This Johnstown peck measure was found at an antique show in 1998. It had a tag indicating that at one time it had belonged to "J. R. Gray from the old home of Mrs. A. W. Gray – the Anderson farm at Burrigge near Westport." A note on the back of the tag stated that it had been displayed at a Women's Institute at Lyn, Ontario.

It is now in a Southern Ontario private collection. A close examination of this one piece and two other District sets shows conclusively that they were all made by the same metal smith.



## Bathurst District

The Bathurst District was formed by Proclamation on November 13, 1822. The set of weights was



*Helliwell Receipt, November 1827*

shipped to the District in the autumn of 1826. Fairbanks had a box made, supplied packing material and charged 10 shillings for the service.<sup>13</sup> There is no record that shows when the District received the measures. Shown here is a blanket receipt from the Helliwells in November of 1827 that showed that the government had paid to them, the remaining amount owed for all eleven sets.<sup>14</sup>

<sup>13</sup> LAC, Receipt from D. Cameron to Levi Fairbanks for Midland District W&M., July 3, 1826, Dec.28, 1826

<sup>14</sup> Ontario Archives RG 5 B34 vol. 9

### NOTICE.

**T**HE Subscriber having been appointed *Inspector of Weights and Measures for the Midland District*, informs all persons concerned, that he has received the Standard for said District, and is prepared to examine and compare all weights and measures which shall be presented to him for that purpose, with said Standard; and has annexed the sixth or penal clause of the Act relative to Weights and Measures.

**ROBERT RICHARDSON**  
Inspector of Weights and Measures,  
Midland District.

Kingston, 28th August, 1826.

#### *Vth Clause of the Act relative to Weights and Measures.*

**VI.** *And be it further enacted by the authority aforesaid, That all Store-keepers, Shop-keepers, Millers, Distillers, Butchers, Bakers, Hucksters, and other trading persons, inhabitants of such District, for which a Standard of such Weights and Measures as aforesaid shall have been obtained, who shall, after the expiration of six months after such standard of Weights and Measures shall have been received, and Inspector appointed as aforesaid, have in his possession any Weights or Measures whereby he buys or sells any article, for the weighting or admeasurement of which such Standard of Weights and Measures are generally used, any other than such Weights or Measures as have been examined and stamped, or marked as aforesaid, shall forfeit for every offence Two Pounds Provincial Currency, being thereof convicted before any one or more Justice or Justices of the Peace; on the oath of one credible witness, which said penalty, together with all reasonable costs, shall be levied by distress and sale of the offender's goods, and in the default of distress such offender shall be committed to the Common Gaol of the District for a term not exceeding one month.*

*Kingston Chronicle*

*August 1826*

## Midland District

A letter from the chairman of the District Magistrates dated January 1825, "requests that your Excellency will be pleased to direct the Secretary of this Province to furnish a Set of Standard Weights and Measures for the Use of the Midland District and to say that the charges attending the same will be made good from the funds of the said District"<sup>15</sup>

An advertisement in the Kingston Chronicle in August of 1826, stated that Robert Richardson had been appointed "Inspector of Weights and Measures for the Midland District. He informed all persons that he "has received the Standards for said District and is prepared to examine and compare all Weights and Measures". Included is a copy of the portion of the law that stated the public's responsibilities.<sup>16</sup>

A list of "Rules and Regulations For the Market of the Town of Kingston" was published in the "Kingston Chronicle" of 13th February, 1830. It was an extensive listing of 38 rules covering every aspect of the Kingston Market. Four of them were about weights and measures.<sup>17</sup>

"18. That the Clerk of the Market shall examine the scales, weights and measures used in the Market at least once a month, and that any person convicted of using or having in his possession, false scales, weights or measures, shall forfeit the same and pay the sum of twenty shillings.

26. That persons using steel yards for weighing in the Market place shall forfeit the same and pay a fine

of ten shillings.

28. That all articles which require to be weighed shall be taken to the weigh-house kept by the Clerk of the Market (unless they belong to a Butcher or Huckster who has scales or weights in the market) under a penalty of five shillings

29. "That the Clerk of the Market shall charge the following fees and no more for weighing, viz:

Articles under 28 lbs.	one penny
28 lbs. and under 56 lbs.	one penny halfpenny
56 " " 112 "	two pence
112 " " 224 "	three pence
224 " and upwards --	four pence

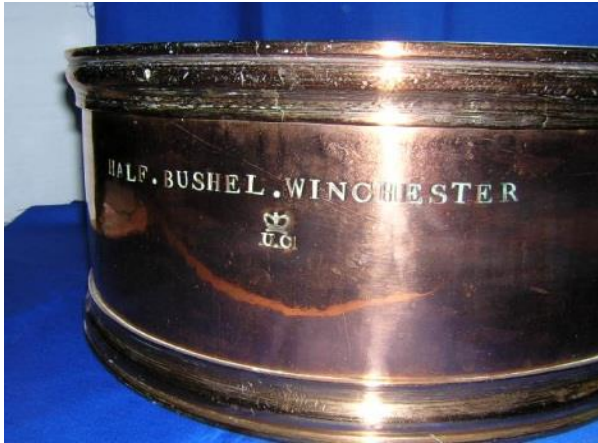
And every person selling who may refuse to have such articles weighed shall forfeit five shillings for each transgression."

<sup>15</sup> LAC, RG5 A1 Vol. 70 [D37219]

<sup>16</sup> Kingston Chronicle, September 15, 1826, p.3

<sup>17</sup> Ibid, February 13, 1830

## Midland District Measures



*Midland District Half Bushel*



*Midland District Wine Pint* Private collection.



*Midland District Gallon, Half Pint, Pint and Half Gallon*

*E. Little Collection*

### Recent History

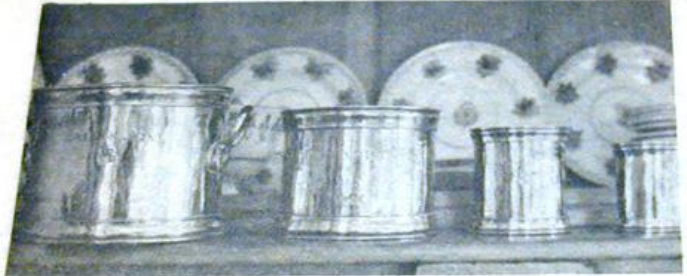
The set of measures were used for many years in the Kingston area, but because of the change to Imperial Measure in the mid-1870s, they were stored away. At some time in the 1960s five measures from this set were polished up and put on display in a Kingston area collector's home.

One night in the mid-seventies thieves broke into the house. The measures, along with many other items, were stolen and at some later time taken to New York State. After several years had passed, they were consigned to an auction in that state. A collector of copper and brass added them to his collection unaware of their history and Canadian background. Upon his death, his wife consigned them to another auction where a collector of scales saw them, liked them and bought them. He assumed that they were British and from somewhere in the Midlands of England. He eventually came across a reference to Upper Canada's Midland District and directed a question to the Canadian Museum of Science and Technology. They agreed that they were probably from early Ontario but had no information about them.

The Museum contacted some Ontario collectors of early Canadian metal ware who became interested and started a search for information. By chance, some similar examples were found in a Niagara-on-the-Lake museum, but officials there knew nothing about them or their history. They thought that they had been in the museum's collection since its inception in 1895.

In 2006 an observant museum curator, when shown photos of the Midland measures, remembered a report that he had seen in an old 1976 copy of "Circa 76", the forerunner of the "Upper Canadian", both respected antiques magazines. A short report with photographs gave details of a break-in where several items were stolen. The pictures and description left no doubt that these were the stolen items which were now in the eastern U.S.

**STOLEN** —————



*Dear David,*  
I am enclosing a photograph and the following information concerning a break, enter and theft at a Kingston area house of one of our clients.

The photograph shows part of an unique and valuable set of copper measures consisting of five pieces ranging from half pint to one bushel. The bushel measure is marked "Winchester Midland District U.C. 1826". Each smaller piece is marked with the year 1826, its size and the initials W.I.N.C.

In addition, a large quantity of brass and copper pieces were

stolen, including 16 pairs of antique brass candle sticks, a large copper frying pan, an old brass Russian Samovar, copper jugs, pots, bowls, plates etc. A pewter one quart pail with cover, ten pewter measures etc.

The stolen items include an old French bronze figure (signed) of a woodcutter holding an axe; about 12 - 14 inches high.

Also stolen was a 12 place complete setting of Birks Old English sterling silver and a rare soup ladle with an unknown mark and with the word "Dundee" on it.

Please send any information as

to the present location of these stolen items to the Ontario Provincial Police, Kingston Detachment, Kingston, Ontario, or to Blake McKendry, Elginburg, Ontario; phone 613-353-2120 collect.

Our thanks to CIRCA '76 for publishing this information.

Sincerely  
Blake A. McKendry

The Provincial Police Detachment at Kingston was contacted in May of 2006. It was stated by a police spokesman that the city of Kingston now had its own Police Force. He also commented that the records from that time had been destroyed since so much time had passed. The insurance money had been paid and the case was closed.

The U.S. owner was informed of the theft and shown the article. He contacted the two American auctioneers to inform them of the situation. The auctioneer who conducted the last sale said emphatically that if they were returned to him because they had been shown to be stolen property, he would turn them into scrap. The time that he would have to expend on any investigation, he said, would be too costly for his business. The owner decided to pursue the topic no further.

They were returned to Canada in 2011 and now reside in an Ontario collection. Another example from this set, a Wine pint in untouched condition, is pictured on page 76 (top right). It was sold in an online auction in 2014 having been discovered near Cleveland Ohio. It remains in the United States.

## Newcastle District

The judges of the Quarter Sessions convened in the township of Hamilton in Newcastle District on October 1, 1825 and “Ordered that the Treasurer procure Standard Weights and Measures from the Secretary of the Province and pay the charges attending the same.”<sup>18</sup> Copies of both the Helliwell and Fairbanks receipts were located at the Archives in Ottawa and showed that the weights from Fairbanks were charged at 25 pounds plus 10 shillings for the shipping box and packing. They were sent to the District on July 2<sup>nd</sup>, 1826, whereas the measures were shipped by the Helliwells on September 1<sup>st</sup> of the same year.<sup>19</sup>

The payment from the District was forwarded in October to “D. Cameron Esq. in payment for weights & measures for the District”.<sup>20</sup> An impatient sounding letter sent from Hamilton (township) was dated October 24, 1826 and said, “Sir the Barren W. John Woolstencroft will call on you for orders to receive the Weights and measures for this District and will thank you to give him the Same. Mr. Ward Left the monney (sic) to pay for them at the Bank Last Summer Subject to your order.

I am --- Yours Truly  
Zaccheus Burnham”<sup>21</sup>

The Magistrates of the District had second thoughts and decided that their Standards should have included an official Standard Yard. John Woolstencroft, now identified as the Inspector of weights and measures, composed a letter to Duncan Cameron on May 18, 1827, asking for the “Yard or Ell”. He also asked for a good beam scales, offering to pay by “return of Stage”. Cameron responded, a copy of his reply added to the bottom of the Newcastle request. He said, “I have to acknowledge the rcpt. Of your Letter of the 18 inst. and to say that I have not yet procured any Standard Yard Measures thinking it a useless expense, the Measure being the same as all Common Rules to be had – if however, it is desired, I will endeavour to get them made. With respect to Scales and Beams you will do well to send to Montreal where they may be had of any description”<sup>22</sup>

On January 23rd, 1831, a little more than five years after the weights and measures had been delivered, a fire burned the building in Amherst (now Cobourg) where the Newcastle weights and measures were kept. All of the measures were destroyed except for the half bushel and the smaller weights under two pounds. A letter was sent, presumably to Duncan Cameron, certifying that the loss had occurred. It stated, “I certify that the under mentioned Weights & Measures of the Newcastle District were destroyed by Fire on the twenty-third day of Jan’y eighteen hundred & thirty-one. Sworn before me this 9<sup>th</sup> day of January 1832, R. Henry, J.P.” It was also signed by “Geo. Hurt, Inspector.” There followed a list of the missing items. It should be noted that the half-peck, peck and bushel, were not included. This tends to support the idea that those larger measures were made of wood by a local artisan as we saw in the Ottawa and Home Districts. Interestingly, the letter was sent a year after the occurrence of the fire.<sup>23</sup>

<sup>18</sup> Archives Ontario, Minutes, District of Newcastle, RG. 22, Series 29, vol. 4, 1824-1831 (MS 698, Reel 1) 105119-2

<sup>19</sup> Ibid

<sup>20</sup> Ibid

<sup>21</sup> LAC, RG 5 A1 vol. 79, 142896

<sup>22</sup> LAC, RG 22-3770

<sup>23</sup> AO, RG 22-3775 (List of W & M)

I certify that the undermentioned Weights & Measures of the Newcastle District were destroyed by Fire on the Twenty third day of ~~Jan~~ <sup>Jan</sup> eighteen hundred & thirty one

Wine Measures	Wey	Winchester Measures	Weights
1/2 Gallon		1/2 Gallon	1 Dram
Pint		1/2 Pint	1/2 oz
1/2 Pint		Pint	— oz
Pint		Quart	2 — oz
Quart		1/2 Gallon	4 — oz
1/2 Gallon		Gallon	1/2 lb
Gallon			1 — lb

Scales, Beam & Hammer

---

Weights saved from the Fire

2 lbs — weight  
 12 lbs — do  
 7 lbs — do  
 14 lbs — do  
 20 lbs — do  
 50 lbs — do & the half bushel Measure

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Sworn before me this 9<sup>th</sup> day of January 1832.

R. Henry J.P.      Geo Hart  
 Justice of the Peace      Inspector

Letter 1832- Newcastle Measures that were Lost in a Fire

LAC RG 22-3775

Two days later a note from the Newcastle Clerk of the Peace directed that "The Treasurer of the Newcastle District is hereby ordered to supply the weights and measures returned deficient in the within statements."<sup>24</sup> The magistrates had realised that the District was responsible for their cost and had ordered payment to the Secretary.

A survey of the history of Cobourg and the village of Amherst has not uncovered any mention of a major fire in 1831, although smaller fires were common and at times went unreported.

<sup>24</sup> AO, Minutes of the Quarter Sessions, Aug. 6, 1825, p.173



## Home District

The Quarter Sessions of the Peace for the Home District met in York on August 6<sup>th</sup>, 1825 and “Ordered that he would be pleased to direct the Secretary of the Province to furnish the Home District with a true Set of Weights and Measures under the provisions of an Act passed in the 4<sup>th</sup> year of His Present Majesty’s Reign to that effect.”<sup>25</sup>

On October 8<sup>th</sup>, 1825 the magistrates met and “Ordered that the Chairman do apply to the Secretary of the Province for a Certified Set of the following Measures and Weights - *Dry Measure*- ½ Bushel – Bushel – Peck - Gallon & Quart, *Wine Measure* – Gallon, Quart, Pint, half pint & Gill, All the Weights to be compared”. The next entry stated, “Ordered that Curry Coulson be appointed from this date Inspector of Weights and Measures.”<sup>26</sup> The 1837 Toronto and Home District Directory listed Corrie Coulson as Clerk of the Public Market.

The Law which had passed on March 19<sup>th</sup>, 1823 stated that “the measures were to be made of such durable materials as shall, be deemed most proper for that purpose”. The decision that copper was to be used for all the measures had been made in the early autumn of that year but it appears that the information was not communicated to the districts because on December 3<sup>rd</sup>, 1825, the District “Ordered that the Clerk of the Market procure a Bushel, half Bushel, Peck, and half Peck measures to be made of White Oak with two Iron Hoops, one at the top and one at the Bottom and an Iron pier in the center connected by an Iron Strap to the uppermost hoop and square with the top”.<sup>27</sup> The belief that wood could be used for official instruments was unusual since it ignored the probability of warping and shrinking which would have given inaccurate results. However, some English and Scottish standards were made of oak and so the precedent for wooden standards had been set as early as 1754.<sup>28</sup> On December 10, 1825 the Magistrates “cheerfully acquiesce to the Weights and Measures of the approved Standard being made under his Superintendence” The letter lists the items required, ending with “1 set of Brass Weights from a 56 to a drachm”, (or “dram”). The list of dry measures is abbreviated, “Bushel, half Bushel and Peck not included, supposed to be made of Wood as fir or ash” - (last 3 words are illegible).<sup>29</sup> The minutes of the Quarter Sessions for April 1st, 1826, recorded “The Account of Richard Brewer, Cooper, for making a Set of Measures for the District. Viz

1 Bushel	
½ Bushel	Amounting to £3-10
A Peck and	Currency was approved
A half Peck	and Audited” <sup>30</sup>

R. Brewer is listed in the 1833 directory as a bookbinder living at 168 King St. He was still there in 1837 with the name Richard. At the same time another Richard Brewer was living on Yonge Street. Neither man is shown to be a woodworker, but as we saw with Levi Fairbanks, it was common for a man to have several vocations throughout his working career.

Fairbanks signed a receipt for 25 pounds in July of 1826 after receiving payment for the Home District weights. On November 21, 1826 the Inspector of Weights and Measures was told to “receive” them, and the District Treasurer was ordered to pay the Secretary the sum of Forty-Five Pounds.<sup>31</sup> It is probable that the inspector simply went to the Fairbanks and Helliwell shops to collect them. They had been ‘received’ by December 12<sup>th</sup> because on that date the Inspector was ordered to give Public Notice in the Upper Canada Gazette that he had the measures and weights and “was ready to examine all that were brought to him”.<sup>32</sup>

<sup>25</sup> Archives of Ontario, Minutes of the Quarter Sessions, Oct. 8, 1825, page 180

<sup>26</sup> 1833 Toronto and Home District Directory, Metro Toronto Research Library

<sup>27</sup> Archives of Ontario, Dec. 3, 1825, p. 183, RG5 41, Vol. 75 [D40115]

<sup>28</sup> Weights and Measures in Scotland, Connor & Simpson, pp. 576, 579, 595

<sup>29</sup> Archives of Ontario, Minutes, Home District, Dec 10, 1825, P. 185, RG5 41, Vol. 75

<sup>30</sup> Archives of Ontario, Minutes, Home District, Apr. 1, 1826, P. 96

<sup>31</sup> AO, Minutes, General Quarter Sessions, Home District, Nov.21., 1826

<sup>32</sup> Ibid, Dec. 1826

## Niagara District

The magistrates of the District of Niagara wrote the Lieutenant Governor in January of 1824 to request, "the under mentioned weights and measures be furnished for the use of the district". The letter ends with a list of their requirements.

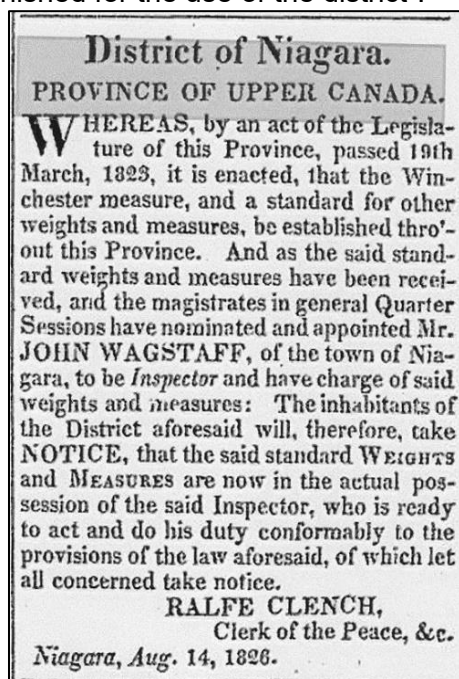
"Brass or Iron weights from one oz. to 56 pounds  
Copper Measures ----- one Gill to one gallon  
Wooden-ditto ----- one peck to one bushel"<sup>33</sup>

The line that asks for "wooden" dry measures confirms that wooden examples had previously been used as standards, and so the 1823 statute was interpreted by the magistrates as following that tradition. However, copper ones were provided instead, as the photo of the half bushel on the following page shows.

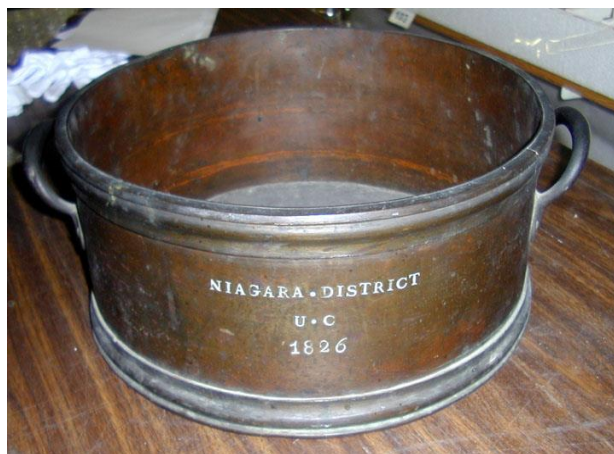
Fairbanks and the Helliwells signed receipts for their parts of the project on August 12<sup>th</sup>, 1826.<sup>34</sup> The shipment of the equipment must have gone to Niagara several weeks before the receipts were signed because a notice was placed in the Farmer's Journal in St. Catharines informing the District that John Wagstaffe was the Inspector and was in charge of the weights and measures. It was signed by Ralfe Clench, the Clerk of the Peace on August 14, 1826.<sup>35</sup>

These measures were used for about 23 years because after the opening of the Welland Canal the town of St. Catharines became larger and more important. In 1849 the Niagara District was replaced by the United Counties of Lincoln, Welland and Haldimand, and new sets would have been required.

The Niagara set is surprisingly complete and is now housed in the Niagara-on-the-Lake Historical Society Museum which was founded in 1895. They have been there since the local council donated them to the Society in 1917.



*Farmer's Journal, St. Catharines 1826*



*Niagara Half Bushel*

*Niagara Historical Society Museum*



*Wine Measures - Pint and Half Pint*

*NHS*

<sup>33</sup> LAC, RGS A1 Vol. 65 (No. 34291) Letter from J. Muirhead

<sup>34</sup> LAC RGS B34, Vol. 9, Receipts for measures and weights

<sup>35</sup> Farmer's Journal, Vol. I, No. 38, St. Catharines, Oct. 25, 1826



*Niagara Half Gallon Wine, Pint Wine and Quart Winchester NHS*



*Niagara 56 Pound Weight NHS*

Most of the weights from this set survive in the museum. Upon closer examination it was noted that none of these weights were marked as belonging to the Niagara District. The maker (or District) saved money by not engraving each weight with the District name.

## Unmarked 1826 Weight

This seven-pound weight is stamped with the "U.C." mark but with no District name and no indication of the weight, which is normally stamped on the top of the handle. It is otherwise identical to the weights of the Niagara District.

This example could have come from some other district since it appears that none of them were marked with a District name.

It is also possible that Fairbanks had extra sets made in anticipation of more Districts being formed.



*Collection of A. Kool*

## District of Gore

A letter from the Court House in Hamilton is the only document that has been found from this district. It is dated October 13, 1825, signed by the chairman of the magistrates and was mistakenly sent to the Secretary of Parliament. It asked the Provincial Secretary to "furnish the local inspector with the weights and measures intended for the District"<sup>36</sup>

None of the set that was delivered to the Gore district have survived.

<sup>36</sup> Letter from Court House, Hamilton, LAC RG5 A1, Vol. 74, (No. 39465)

## London District

Duncan Cameron issued the order for this District's set of weights and measures on July 3<sup>rd</sup>, 1826. Levi Fairbanks signed the receipt of payment in May of 1827.<sup>37</sup> Packing was charged at 10 shillings and so the bill came to 25 Pounds and 10 shillings

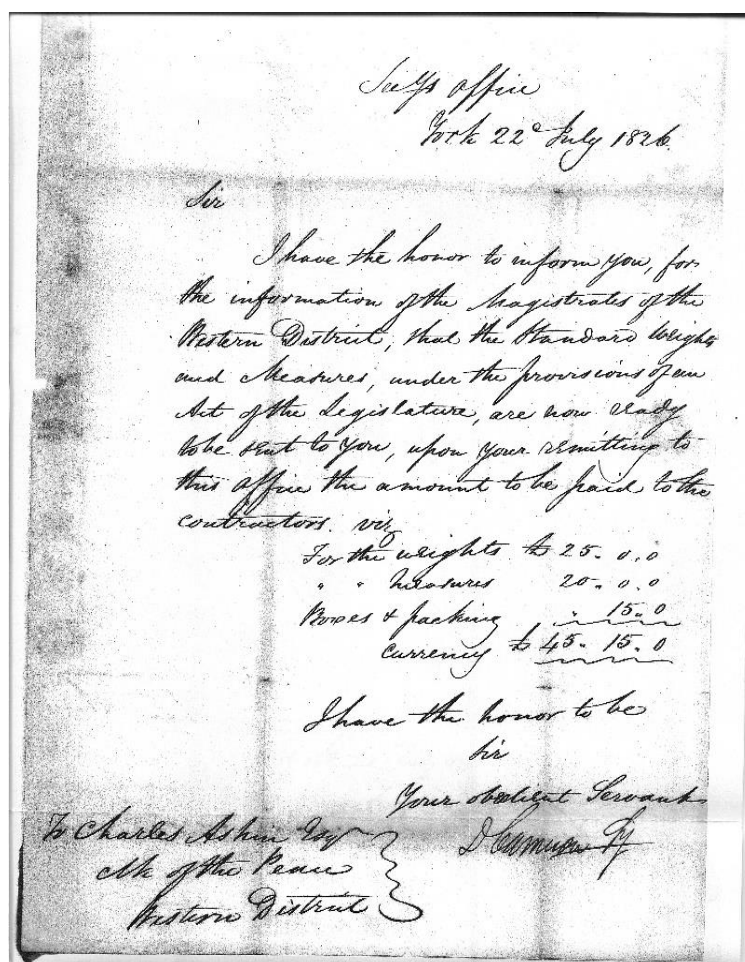
On the 3<sup>rd</sup> of May 1827, the treasurer of the London District, John Harris, wrote from what was then the district town of Woodhouse, to Provincial Secretary Cameron, saying "I transmit to you the Sum of 45 pounds 10 sh. Currency on acc't of a Set of Standard Weights & Measures made for the London District which will be sent for as soon as possible."<sup>38</sup> Two short notations on the back of this letter, written upon delivery at Cameron's office, say "Received 10 May 1827—Paid Mr. Fairbanks = £25.10" and "--Paid Messrs (unreadable), 15 May, 20 (Shillings)". This indicates that the government paid a third person to deliver the shipment to the London District.

## Western District

The Provincial Secretary's office issued the receipt to this District on July 3<sup>rd</sup>, 1826. A letter from Secretary Cameron dated July 22, 1826, informed the magistrates that the weights and measures "are now ready to be sent to you, upon your remitting to this office the amount to be paid to the contractors."<sup>39</sup> The packing was charged at a slightly higher rate so that the bill came to 45 pounds, 15 shillings. The additional 5 shillings was for extra packing needed for the rough roads and longer distance to the district.<sup>40</sup>

Late in 2014 a Peck dry measure from this District sold at an Ottawa auction. It had been purchased many years ago at a Montreal antique show and was sent to the auction by the owner's estate. There was some speculation that it might have come from a small town near Ottawa that was named Winchester.

It was purchased at the auction, cleaned and polished, and eventually sold to a collector in eastern Ontario.



D. Cameron to Western Dist. 1826

AO RG22 -1824, item 4820

<sup>37</sup> London, Receipt from Levi Fairbanks for weights, LAC RGS B34, Vol. 9,

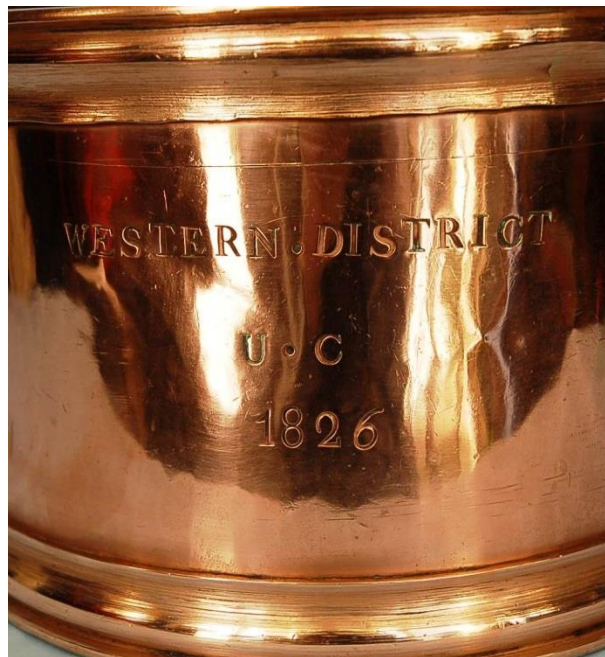
<sup>38</sup> Letter from Town of Woodhouse, May 1827, LAC,

<sup>39</sup> AO, RG22-1824, Item 4820, Interim Box 301, County of Brant

<sup>40</sup> AO, RGS B34 Vol. 9, File: Distribution of Weights and Measures



*Winchester Peck Marked U.C. for Upper Canada*



*Reverse- Western District 1826*

*Courtesy A. Bousquet*

## City of Toronto

The Town of York became the City of Toronto on March 6th, 1834. The “Common Council of the City of Toronto” was its official name. Three months after being established as a city, the Council appointed “William Musson to be the inspector of weights and measures for this city, and that he take an oath faithfully to fulfill the duties of the office”.<sup>41</sup>

Prior to 1834 the Town of York was governed by the Quarter Sessions of the Home District. Inspector’s measures were purchased by that body in 1826 and were used primarily by the District Inspector in York, the center of population in the area. When Toronto was separated from the District, the measures remained with the District Inspector. By August of 1836 the Toronto Common Council focused their attention on the topic of measures. Their attitude was that the city should have “the use of the Standard weights and measures purchased for the use of the city of Toronto, the same having been purchased in part by the citizens”.<sup>42</sup> A letter to that effect was sent on September 30, 1836 from T.D. Morrison, Mayor of Toronto, to D’Arcy Boulton, Chairman of the Quarter Sessions, requesting “occasional use by the city of the weights and measures purchased for the Old Town of York”. Four days later, Boulton responded, agreeing that Toronto could have “occasional use of the standards”.<sup>43</sup>

On Oct. 13, 1836, a letter from S. Washburn, Clerk of the Peace, Home District, to Mayor T.D. Morrison, explained that “the Weights and Measures, of which they wish to use, are in the possession of John Roddy, Inspector of Weights and Measures for the Home District and can only be removed by another order of Sessions.”<sup>44</sup>

The City of Toronto concluded that they would have to share the equipment with the District, so on Dec. 7, “Mr. Eastwood moves that a humble petition be presented to the Provincial Legislature praying they will amend the Act of Incorporation so as to enable the city authorities to appoint an

<sup>41</sup> Archives Toronto, City Council Papers, 1834 to 1896, - June 17, 1834

<sup>42</sup> Archives Toronto, Journal - Common Council of the City of Toronto, Minutes- Aug 10, 1836, Item 350

<sup>43</sup> Ibid, Sept 30 1836, Item # 51

<sup>44</sup> Ibid, Oct 13, 1836 RG 1 B1 Calendar

inspector of weights and measures as well for the city as the Home District who shall have custody of the Standard Weights and Measures provided by the District.”<sup>45</sup>

The next task was the naming of someone to be the inspector of Weights and Measures, a person who would deal with the shops and taverns and markets. No mention is made of Mr. Musson who had been appointed to that position two years earlier. The main market in the St. Lawrence neighbourhood near the harbour was administered by the Market Clerk but the city inspector was responsible for checking the weights and measures there.

In January of 1837 Humphrey Bennett petitioned for the job of Senior City Inspector of Weights and Measures. After a month’s consideration by a committee, he was recommended and hired for the position.<sup>46</sup> At a council meeting in June of 1837, a committee was formed to consider the duties of the inspector and the duties of Bennett were suspended.<sup>47</sup>

In November of that year Hiram Piper “prayed for the appointment of Inspector of W & M”, his name being presented by Mr. Craig, the head of the June committee. Shortly after, on the same day, Mr. Craig moved that Piper be appointed Inspector “in the room of Humphrey Bennett.” After a vote by the council, Piper was given the job.<sup>48</sup> A petition by Bennett “praying for an investigation in his case” was referred to a Select Committee “to report at their earliest convenience”.<sup>49</sup> There are no records of any meetings of this committee.

Hiram Piper was reappointed inspector of Weights and Measures many times over the years. Entries in various Directories show that Piper retained his post until at least 1856. Richard Watson held the post from 1865 until 1876. Piper’s nephew, Harry (at times called Henry) was the inspector in the 1880’s for several years.

## Toronto Market – 1834 – 1859

It was decided to revise the rules for the market in the new city since the old ones had been written by the magistrates of the Home District. The new regulations introduced on May 27th, 1834, had fourteen sections and took up almost two newspaper columns when they were published. Only three of the sections dealt with weights and measures.

**Section I, No. 7** “All meat sold shall be previously weighed on a scale by weights properly inspected, stamped, marked and if necessary duly corrected by the examiner of weights and measures for the city. All persons selling by weight or measure in the market, shall provide themselves with good scales, weights and measures, regularly marked and stamped, and duly adjusted by the said examiner of weights and measures.”

**Section V, No. 1** “The clerk of the market, under the direction of the Mayor, shall inspect first the weights, measures, and balances that may be used in the market, and seize and destroy such as are not according to the established standard”

**No. 6** “He shall determine all disputes that may arise in the market respecting weight or measure”.

**Section IX**, “All articles in the market shall be sold by weight or measure; and any article which shall be offered for sale for a certain weight or measure, and shall prove defective, shall be forfeited and seized for the use of the poor.”<sup>50</sup>

It was found in February of 1835 that several weights were missing from the Market Clerk’s inventory. A Market Committee recommended that 28, 14, 7, two 4-pound weights, a 1 pound, 2 half pounds and 2 quarter pounds be provided for the Farmers’ Stalls.<sup>51</sup>

<sup>45</sup> Ibid, Dec. 7, 1836, Item # 429

<sup>46</sup> Ibid, Feb. 20, 1837, Item # 91

<sup>47</sup> Ibid, June 1, 1837, Item # 236

<sup>48</sup> Ibid, Nov. 9, 1837, Item # 366

<sup>49</sup> Ibid, Nov. 13, 1837, Item # 368

<sup>50</sup> Act to Regulate the Public Markets, The Correspondent and Advocate (Newspaper), May 31, 1835

<sup>51</sup> Archives of Toronto, Toronto City Council Papers- 1834-1896

A revision of the Market Rules in 1840 declared that any item sold by weight that turned out to be deficient, was to be confiscated from the vendor and given to the poor. All other sections concerning weights remained unchanged.

A new by-law was passed on July 4, 1859. It was “To Regulate Weights, Measures, and Weighing Machines in the City of Toronto”. This time the Council was ordered to appoint an Inspector, requiring him to post security of \$400 along with two “sureties” of \$200 each. The regulations were listed, all of which were the same as the previous rules. The duties of the inspector were listed as well. He was entitled to demand and receive ten cents for every weight or measure that he marked or stamped. He was to ensure that there were Standards in the city’s possession by applying to the previous inspector. This was a precaution that the mayor was anxious to include, because of the problems with Hiram Piper, who had insisted that the standards he had were his own. (see Chapter 14) Another precaution was added which stated that when a new inspector took over, the previous inspector was required “to deliver to his successor, all Beams, Stamps and Standard Weights and Measures in his possession.” <sup>52</sup>

## City of Hamilton Market– 1833 – 1849

The Upper Canada Legislature passed a bill in February 1833, to organize the local government of the Town of Hamilton. A major concern was the setting up of a market for the town. This bill set out general rules concerning its size and location and authorized the borrowing of one thousand pounds for the building of a Market House. <sup>53</sup>

A municipal election to elect the Town Council was held in March of 1833. The new members met in the following week and took a poll of householders to determine where the market should be located. A lot on Main Street was chosen as the best site. John Kennedy was named Clerk of the Market as well as Inspector of Weights and Measures. By-laws were established at a meeting of council on March 18<sup>th</sup> where the weight of a standard loaf of bread was set at four pounds and the price at 7½ pence. The baker’s initials were to be stamped on each loaf. <sup>54</sup>

On March 12, 1835, a vendor was charged with a violation of the Market rules, which indicated that the rules were in force at that date. The market house seems to have been under construction by this time. According to a March 16 entry recorded in the town minutes, an “Order was given in favor of William Evans for a stone for the Market house”.

Hay or weigh scales were installed in the market early in 1835. Kennedy, the Market Clerk, Inspector of Measures and now also Clerk of the Weigh Scales, paid four pounds ten shillings to the Police Board, as proceeds of the Weigh scales. Soon after, the right to operate the Hay Scales were put up for auction for a period of one year. The rights were bought by Kennedy for 30 pounds. He went on to manage the scales and to collect fees out of which he paid the Council two pounds ten shillings each month. To add to his other titles, Kennedy, at the end of March was made “crane bearer to the Hay scales”. <sup>55</sup> No explanation of this title has been found.

The first market grew so rapidly that the space was soon deemed to be inadequate. A new Act was passed by the Upper Canada legislature on May 11, 1839. It instructed that a new, larger site was to be found and money borrowed to pay for it. The Town of Hamilton was asked to make the rules and regulations for the operation of the market. <sup>56</sup>

The City Council received a report in 1847 that recommended the appointment of a new Weights and Measures inspector. It was immediately acted upon, and “in March 1847 Joseph Rollstone was appointed inspector within the City of Hamilton”. <sup>57</sup>

<sup>52</sup> Ibid- 1859 Appendix, p.29

<sup>53</sup> Statutes of Upper Canada, 3rd Year, Wm. IV, Chap. XVII pp.58-59

<sup>54</sup> Hamilton City Archives, City Council Minutes- 1833, Microfilm # 102, p. 4

<sup>55</sup> Ibid p. 7

<sup>56</sup> Canada Statutes, Vic 2, Cap 46, 1839

<sup>57</sup> Hamilton City Archives, Council Minutes, March 1847

The employment of two inspectors of weights and measures, (Kennedy and Rollstone - one for the city and the other for the market) led to some difficulties. It is likely that friction developed between the men, possibly over who would have possession of the inspection standards. It is probable that there weren't enough merchants in the town to keep Rollstone busy and to provide him with an adequate income.

On July 23, 1849 a Grievance Report was tabled and although the contents were not recorded, it led to a motion that the Market Clerk, by this time a Mr. Branigan, was to be the inspector of W&M and "W. Rollstone be discontinued from this date".<sup>58</sup> The Council had second thoughts about the problem because an amendment was moved and quickly passed saying that the appointment question should be "referred to the Market Committee to report to the Council at its next meeting". That next Council meeting was held on July 30th and the report recommended that Rollstone remain in his position and be in charge of the Standards.<sup>59</sup>

On August 18, the Standing Committee on Markets submitted another report that stated that they "cannot recommend that W. Rollstone be allowed to attend in the Market with his scales for the use of the Public".<sup>60</sup> Later that week, the same Committee presented a long report that said that they were apprehensive that Mr. Branigan and Rollstone might "give further trouble unless Rollstone was discontinued as Inspector or Branigan was required to hand over the weights and measures to the Inspector. They ended the report with "will require further action by the Council".<sup>61</sup> No further entries in the minutes give any indication of the resolution to the problem.

## DISTRICTS, COUNTIES and TOWNS PROCLAIMED after 1826

<u>Districts</u>		<u>Counties</u>				<u>Towns</u>	
Brock	1837	Prince Edward	1831	Oxford	1850	Brantford	1847
Victoria	1837	Huron	1838	Norfolk	1854	Stratford	1858
Talbot	1837	Colborne	1838	Brant	1855	St. Catharines	1858
Dalhousie	1838	Victoria	1838	Grey	1855	Galt	1849
Wellington	1840	Kent	1838	Haldimand	1856		
Simcoe	1843	Waterloo	1849	Perth	1859		
		Brant	1852	Elgin	1859		

<sup>58</sup> Ibid July 23, 1849

<sup>59</sup> Ibid July 30, 1849

<sup>60</sup> Ibid Aug. 18, 1849

<sup>61</sup> Ibid



## CHAPTER TEN- Legislation – 1840 to 1859

### 1. Upper Canada - 1840 Weights & Measures Act - 3 Vic. Cap.17

This was the first Act concerning measures and weights since the 1823-1824 legislation. Three changes were made to the earlier law.

Firstly, in the 1823 law there was a provision for fines to be assessed against any offenders who were found to be using illegal equipment. The proceeds were to be split between the “Civil Government of this Province and the informer”. That law was dependent upon customers who would report unlawful practises of vendors. However, there were difficulties with the veracity of many of the “informers”, some of whom wished only to get a portion of the fine. As a result, this section of the 1823 Act was repealed.<sup>1</sup>

Secondly, the duties of the inspectors had not been clearly defined in the earlier Act. In the previous act it had been decreed that the merchants take their equipment to the inspectors to have them certified and stamped. Businesses in outlying areas had objected to the expense of carting their measures, weights and scales several miles or more to the town where the inspector had his equipment. It was decided that the answer to this problem was to have the inspectors go to those towns with their equipment. They were required to publish notices in the local newspapers in advance of their visit. The notices were to include the date, time and location at which they would be available “to attend with the Stamps and copies of the Standard Weights and Measures in their custody, to examine, compare, and Stamp if found correct, all Weights and Measures made use of in buying and selling”. A Toronto newspaper advertisement shows one such notice. (See page 90.)

The final section of this new Act stated, “the information of the Inspector upon oath shall be considered sufficient evidence for a conviction-”. Inspectors were ordered to visit each locality at least once a year. This required the transport of the equipment by wagon for up to 40 or 50 miles. The measures, the larger of which weighed over 20 pounds, totalled over 60 pounds in their cases. The weights at 56, 28, 14, 7 pounds as well as several smaller ones, came to over 100 pounds. The weight to be transported was close to 200 pounds. The jarring on the rough roads sometimes caused damage to the equipment and created inaccuracies that had to be remedied by shipping them to Toronto to be checked against the Standards in the Provincial Secretary’s office and then repaired by Piper.

Costs to the inspector were often higher than anticipated. Renting a cart, paying for overnight accommodation, feeding the horse, and renting adequate facilities where the equipment could be set up, were costs that the inspector might not have anticipated when he was first appointed.

These difficulties, especially the unexpected expenses, caused many of the inspectors to reconsider whether their appointment was worthwhile. Records show that many inspectors either quit this job or refused to do all the travelling the law required.

*Refer to P. 101 and the experiences of R. W. Sawtell of Oxford County in 1870 to understand the difficulties encountered by many inspectors.*

### 2. Act of Union – 1840- 41 3 & 4 Vic. Cap. 35

The unrest of 1837-8 and the resulting Durham Report shocked the British Parliament. The Act of Union of 1840 was the result. When the new law took effect in 1841, Upper and Lower Canada were united into one jurisdiction to be called Canada. Laws would be passed by members elected to a single Legislature. The earlier areas were to be referred to as Canada East and Canada West. However, the old names continued to be used by most people and even laws were passed that retained those earlier names. In 1841 representative government was introduced to Canada

<sup>1</sup> Statutes of Upper Canada Passed in the 5<sup>th</sup> Session of the 13<sup>th</sup> Provincial Parliament of Upper Canada, Chap. XVII, 3<sup>rd</sup> Vic. A.D. 1840, p. 29

West under which all Districts were incorporated. The District Council was composed of an elected warden and councillors from the townships in the District

It was decided that the capital should be moved from time to time. The first city chosen was Kingston and so the government was installed there in June of 1841. It moved to Montreal in 1844, but the building there was burned by protesters in April of 1849. The Lower Canada Standards of 1796 were lost in the fire, but the three other sets were safe with their inspectors in Montreal, Quebec and Three Rivers. The Parliament was moved to Toronto the next year, in May of 1850. Toronto was the capital in 1850-1851 and 1855-1859; Quebec was the capital in 1851-1855, and 1859-1865. Ottawa became the legislative capital in 1866, and was officially made the Capital of the Dominion of Canada upon Confederation in 1867.<sup>2</sup>



*Burning of the Parliament Buildings, Montreal, 1849* Ref. McCord Museum, M11588

*The burning of the Parliament Buildings in Montreal occurred on the night of April 25, 1849. The St. Anne's Market building lodging the Legislative Council and Assembly of Canada was burned by Anglo-Protestant rioters in retaliation for the Rebellion Losses Bill as the members of the Legislative Assembly were in session.*

*All books and archives in the two parliamentary libraries, as well as the records of the Legislative Assembly and the Legislative Council had been transported to Montreal. Most of the early records of Canada's government were lost.*

### 3. 1841 - District Councils Act

Previously, most officials were appointed by the Government. This Act established District Councils, where a warden, clerk and treasurer were appointed but councillors were elected.<sup>3</sup>

### 4. 1849 - Weights & Measures Acts

The earlier Acts had a few shortcomings. They were somewhat vague, did not give clear directions to the inspectors and lacked specifics about the way the Counties and Market towns should implement the law. This new act was an attempt to introduce procedures that would guide the inspectors and set rules for all those who used weights and measures.

Since the methods and procedures developed by the two areas of Canada were so different, the authorities decided to write separate laws for each.

#### 4a. Lower Canada, 1849, 12 Vic. - Cap. 54

The Revised Law for Lower Canada was passed on 30<sup>th</sup> of May 1849. It said that the Clerk of the Legislative Assembly was to have custody of the Standards (supplied in 1799). It also stated that "the several Revenue District Inspectors shall also become Inspectors of Weights and Measures".<sup>4</sup> They were "to examine and compare all Weights and Measures presented to him

<sup>2</sup> Monet, Jacques, S. J. -- "Act of Union." -- The 1999 Canadian Encyclopedia: World Edition. -- Toronto: McClelland & Stewart, 1998

<sup>3</sup> The Provincial Statutes of Canada, S. Derbishire & G. Desbarats. 1841. pp. 45-66.

<sup>4</sup> Statutes of Lower Canada, Cap. 54, 30<sup>th</sup> May., 1849 p. 345

with the standard, and when found correct, mark, stamp or brand the same (if a measure near the two ends, top and bottom) with the stamp or brand provided for that purpose.”<sup>5</sup>

The Inspector was to visit the outlying areas to check the accuracy of scales, weights and measures used in commerce. It was lawful for the inspector to enter any place where measures or scales were likely to be used, and “try the same with the copies of the standard Weights and Measures provided by law” He was allowed to charge “Six pence for each weight, beam or scale and for every Measure Four pence and no more”<sup>6</sup>

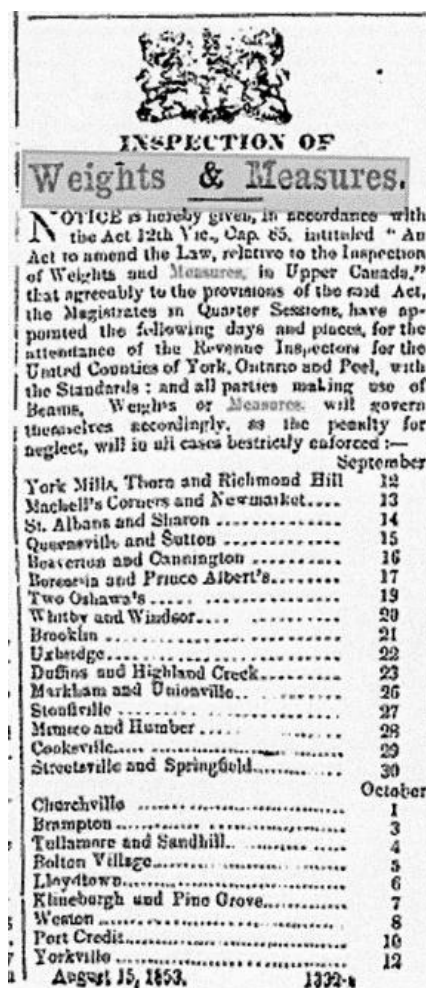
#### 4b. Upper Canada 1849 -12 Vic. - Cap. 85

The revised law for Canada West was passed on April 25<sup>th</sup>, 1849 and retained most of the ideas from the 1840 act. It stated that the District Inspectors of Licenses would also be inspectors of Weights and Measures and were directed to take an oath, which was provided as part of the act. Instructions were given about the stamping of measures when they were found to be correct. They were to “mark, stamp or brand the same, (if a measure, as near the two ends, top and bottom) with the stamp or brand provided for that purpose, with the initials of the reigning Sovereign”.<sup>7</sup> The inspector could charge six pence for each piece that was stamped or branded. Penalties for using unstamped measures or weights were two to five pounds per occurrence. Unjust items were forfeited. Inspectors were given the right to enter business premises to look for illegal weights or measures. Those who used counterfeited items faced high fines.

Most Districts had substantial increases in population, so new divisions were created in some of them. It was decided that the Inspector’s Standard sets of weights and measures would be left in the care of the Inspector in the main District but would be made available to inspectors in the other Divisions when needed. As in the previous Act, listings of the times of visits to the different localities were to be placed in the newspapers, a month before the visit.

A section of this new act stated that when “any City, Town or Incorporated Village in Upper Canada shall appoint an Inspector and acquire Standard Weights and Measures for their use - it shall be the duty of the said Inspector to carefully compare and adjust, and to seal, stamp or mark the same”. When an inspector left he must pass all equipment to his successor.<sup>8</sup>

A notice in the Toronto British Colonist newspaper stated that “attendance of the Revenue Inspectors --- with the Standards, and all parties making use of Beams, Weights or Measures will govern themselves accordingly, as the penalty for neglect, will in all cases be strictly enforced.” There followed a list of dates and places at which the inspectors would be in attendance. The name “Measures Inspector” was changed as the job was now to be done by the Revenue Inspector or in some cases by an Inspector of Licences. The Lower Canada law that is discussed above used similar terms.



**INSPECTION OF  
Weights & Measures.**

NOTICE is hereby given, in accordance with the Act 12th Vic., Cap. 85, intitled "An Act to amend the Law, relative to the Inspection of Weights and Measures, in Upper Canada," that agreeably to the provisions of the said Act, the Magistrates in Quarter Sessions, have appointed the following days and places, for the attendance of the Revenue Inspectors for the United Counties of York, Ontario and Peel, with the Standards; and all parties making use of Beams, Weights or Measures, will govern themselves accordingly, as the penalty for neglect, will in all cases be strictly enforced:—

September	
York Mills, Thore and Richmond Hill	12
Macbell's Corners and Newmarket	13
St. Albans and Sharon	14
Queensville and Sutton	15
Beaverton and Cananington	16
Boreas and Prince Albert's	17
Two Oshawa's	19
Whitby and Windsor	20
Brooklin	21
Uxbridge	22
Duffins and Highroad Creek	23
Markham and Unionville	26
Stouffville	27
Mimico and Humber	28
Cookeville	29
Streetville and Springfield	30
October	
Churchville	1
Brampton	3
Tellamore and Sandhill	4
Bolton Village	5
Lloydtown	6
Klineburgh and Pine Grove	7
Weston	8
Port Credit	10
Yorkville	12

August 15, 1853. 1853

<sup>5</sup> Ibid

<sup>6</sup> Ibid, Section VIII

<sup>7</sup> Canada Statutes, 12 Victoria, Chap.85, 1849, p. 598

<sup>8</sup> Ibid, 12 Victoria, Chap.85, 1849, p. 370

## 5. Baldwin Act, 1849 – 12 Vic. Cap. 85

In 1849, the Legislature of Canada West passed two acts that changed the system of local government. The first statute repealed the five previous acts that dealt with local government.

The second was known as the Baldwin Act or “The Municipal Corporations Act.” whereby a new municipal structure of counties, townships, cities, towns, villages, and police villages was established. It changed local government to the County Council system where the residents elected the local city and county councils. Those new councils could raise taxes and enact by-laws. This legislation became effective on January 1, 1850.<sup>9</sup>

With the Baldwin Act the Courts of the Quarter Sessions were eliminated and the taxation and legislative powers of local councils were expanded. These local councils then were able to appoint all municipal officers including their own inspectors of Weights and Measures.

## 6. Act Concerning Land Surveyors -1851 - 14 Vic. Cap 5

This act set up a Canadian surveying system whereby Boards of Examiners in Quebec City and Toronto were established to ensure that new surveyors in Canada were up to a high standard. Two new sets of linear measures, one with English units and the other with French units, were imported from Troughton and Sims in England.<sup>10</sup>

## 7. Weights & Measures Act - 1855 - 18 Vic. Cap 135

This act consisted of just two paragraphs. It stated, “The Municipal Council of each County and City, in Upper Canada, shall have power to appoint, from time to time, one or more Inspectors of Weights and Measures for each Municipality.”<sup>11</sup>

## 8. Inspectors, Weights & Measures -1858 - 22 Vic. Cap. 99

The Council of every County, City and Town, may pass by-laws;

- For Appointing Inspectors to regulate weights and measures
- For visiting places where weights, measures, steelyards, or weighing equipment are used;
- For seizing and destroying such as are not according to standard;
- For imposing penalties for unstamped or illegal items.<sup>12</sup>

## 9. Clerks of the Markets - 1859 ... 22 Vic. Cap. 64

This was an act to regulate the duties of the Clerks of the Markets.

- To provide for the weighing and measuring as the case may require.
- For determining the weight and quality of bread sold within the town.<sup>13</sup>

## 10. An Act Respecting Certain Weights & Measures - 1859

This act was a move to change the weighing of larger amounts from the old English system to a simpler one. Instead of one hundred and twelve pounds for a hundredweight, the Standard in Canada was to be one hundred pounds. Likewise, a ton now became two thousand pounds. The trading in grains had encountered problems because of the differing size of seeds. The Winchester Bushel was pegged at specific weights for each different seed or grain.<sup>14</sup>

<sup>9</sup> Municipal Government in Canada, Wikipedia

<sup>10</sup> 14<sup>TH</sup> & 15<sup>TH</sup> Victoriae cap. 4 Appendix (B) – A, 1851

<sup>11</sup> Statutes of the Province of Canada, cap. 135, 1st Session. 5<sup>th</sup> Parliament, 1855

<sup>12</sup> Statutes of Province of Canada, 22 Vic. cap. 99, First Session, 6th Parliament, 1858

<sup>13</sup> Ibid. 22 Vic. Chap. 64, 2nd Session, 6th Parl., 1859

<sup>14</sup> Consolidated Statutes of Canada, 22 Vic. Cap.53, P. 642

## 11. Consolidated Statutes of Upper Canada - 1859

Throughout a number of legislative sessions, some laws were amended, and other parts of acts were repealed. This required the legislature to periodically re-state the laws that still applied. The statutes that applied to Weights and Measures were re-stated in 1859. The following is an abbreviated version of the more relevant sections of the consolidated laws.

- The Exchequer Standards (those standards made in England in 1824) were to be in the charge of the Provincial Secretary. When a Municipal Council appointed an Inspector of Weights and Measures, the Provincial Secretary was required to furnish the Council with copies of the standards at the expense of the Municipality.

- Inspectors could be appointed for every County, Incorporated Town and larger city and might have more than one if necessary. If more than one, there was to be a senior person with authority, who would oversee the standards, stamps and brands. After issuing a notice in the local newspaper, the inspector had to visit each locality at least once, and if necessary, a second time. The notice was to include the location of the place where the inspection equipment was set up.

- The inspector must stamp or brand each measure or weight if correct and collect 10 cents for each item marked. Grains and seeds must be sold by weight, not by bushel capacity measure. Sellers were given two months to ensure their scales were correct after which inspectors would have legal access to their premises and might seize any “unjust” items. Fines could range from eight to twenty dollars but could be recovered by the payer if they were shown to be unjust.

- Anyone convicted of making forgeries or counterfeit measures or stamps would face a fine or imprisonment. Anyone who sold such forgeries would face fines of up to forty dollars. Inspectors who breached their duties faced fines of up to twenty dollars. When an inspector left office, the beams, stamps and weights and measures were to be passed to his successor.<sup>15</sup>

## 12. The Change to Decimal Currency

Decimal currency was legalized in 1853, (16 Vic. Cap 158). A second law was passed in 1857- (20 Vic. Cap 18), which instructed that all public accounts were to be kept in dollars and cents. Banks then adopted the change and most businesses followed gradually after that.<sup>16</sup>

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<sup>15</sup> Consolidated Statutes of Upper Canada, 22 Vic. Cap. 58, P 698

<sup>16</sup> History of the Canadian Dollar – by James Powell, p. 22-23

## Fifty Pound Weight – 1859 to 1901

This weight is the result of the 1859 law (see #10 on page 91) that changed the definition of the ton. This is an avoirdupois weight but is a departure from the earlier system in Canada where the ton was 2240 pounds. In the mid 1800's the United States changed their weight system to make calculations simpler and faster. Canada followed suit in 1859 when it was decreed that the ton was to be 2000 pounds. That meant that instead of 28, 56 and 112 pounds, Canadian businesses were able to replace those with units which were easier to calculate. (25, 50, and 100-pound weights).

This example is not identified as an official government weight, so it must have been used in a business situation. It is much larger than the weights found in the small retail stores of the late 19<sup>th</sup> century so it would have been used in a business such as a grist mill, a coal yard or a cheese factory where large sacks or boxes of produce were handled.

Although this example is not marked with a year of manufacture, its earliest possible date would be 1859, the year of the passing of the law. The latest would be the year of Victoria's death which was in 1901.

Its condition, with just a few signs of wear, indicates that it was used sparingly.



## CHAPTER ELEVEN - Districts Established After 1841

### Colborne District, - 1841

An act passed in 1838 separated the Newcastle District and directed that the new area was to be a district called Colborne. It became official when a court house and jail were built. The Colborne District was then proclaimed on October 14th, 1841, with Peterborough as the capital.

A letter, dated 19th January 1842, was sent from T. Douglas Harrington, (who was clerk for the Provincial Secretary), to the Colborne Clerk of the Peace, W.T. Wrighton. He gave the name of Mr. Piper as a person to contact "concerning the procurement of a set of weights and measures for the Colborne District". He gave Wrighton an estimate of 45 pounds as their cost.<sup>1</sup>



*Colborne 14 Lb Weight A. Kool Collection*



*VR and SM (Standard Measure)*



*"14 Lb AVOIR." (somewhat obliterated)*



*Marked- "COLBORNE DISTRICT 1845"*

<sup>1</sup> Fisher Rare Book Library, MSS gen 04.006

## Simcoe District – 1843

The District of Simcoe was partitioned off from the Home District in January of 1843.<sup>2</sup> Quarter Sessions magistrates were appointed to administer the laws and business of the District. John McWatt was appointed as the first Weights and Measures inspector in April of 1843 and held the position until 1858. Simcoe was abolished as a district and became a County on Jan.1, 1850. C. Wilson of Collingwood was made County Inspector in June of 1858 and continued until June of 1872. Due to the increase in population, it was decided that two Inspectors were needed, so another man was hired in 1873. Two more were hired in June of 1875 just before the National Government took over the inspection service.<sup>3</sup>

## Brock District – 1837-1849

The legislation that authorised the Brock District was passed in 1837.<sup>4</sup> It was composed of eastern sections of the earlier London District, all of Oxford County and parts of the Gore District. Woodstock was to be designated as the district town as soon as a Court House was built. The town was still a small settlement of about 200 people at this time but was at the center of a prosperous farming area. The County Court House was completed in 1839 and so the Brock District was officially formed in that year.<sup>5</sup> This was just after the year when the Act of Union was passed and when Upper Canada became known officially as Canada West.

Business and trade grew, a market was established in the center of Woodstock and very soon the council realised that the District did not have a set of standard weights and measures. A letter from the Council, dated April 25, 1843 was addressed to the Provincial government in Kingston. The message stated that “the District had never been furnished with a true standard set of weights and measures” and asked that the province supply them.<sup>6</sup> A second letter was sent a few days later to the Governor General with the same request. The back of this second letter has a notation, written several days later by the recipient that said, “Mr. Piper, of Toronto, written to, to manufacture a Set - 9 May”.<sup>7</sup>

A letter from the Secretary’s office in Kingston, assured the clerk that “immediate steps will be taken for procuring a Set of Standard Weights and Measures for your District.” The cost was expected to be between 40 and 50 pounds. On June 15th the Brock Clerk of the Peace responded to a letter that said the Standards were ready to be shipped. It had taken about a month to complete the entire process! The clerk conveyed his distress at the earlier shipping date because all cash on hand had been spent and no more would be available until the receipts from “the assessment had been collected” in the autumn.<sup>8</sup>

A final letter from the Brock Clerk of the Peace on July 27, acknowledged the arrival of the “Box from Kingston” He complained, however, that “it was expected that they would have been accompanied by the necessary tools for stamping and branding the weights and measures to be tested”. He asked for instructions about “how to get their immediate manufacture ---as without them the weights and measures are almost useless.”<sup>9</sup> The response, if any, was not found in the archives.

<sup>2</sup> Simcoe County Archives - Clerk's Office Fonds

<sup>3</sup> Rootsweb- Archiver>Can-Ont-Simcoe> 2000-04

<sup>4</sup> Handbook of Upper Canada Chronology, Armstrong, P. 164

<sup>5</sup> Oxford Gazetteer 1852, Thomas Shenston, 1852, Reprint 1968, P. 28

<sup>6</sup> LAC, Letter, Apr. 25, 1843, RG5, B34, M3, Vol. 3

<sup>7</sup> Ibid, Apr. 28, 1843

<sup>8</sup> Ibid, June 15, 1843

<sup>9</sup> Ibid, July 27, 1843, RG5 C4 Vol. 3



The measures were made by Hiram Piper who had been contacted around the 9th of May. The sets of six Wine, and seven Winchester measures plus all the weights were delivered very quickly even though they would have taken many days to make. It is probable that Piper had sets of these items already made up and only needed to engrave them with the district name and size. The Pipers appear to have had a near monopoly on the supply of these sets to the municipalities in Upper Canada. It is probable that they had an agreement with the government, however, no official records have been found to support this thinking.

A series of letters from 1843 found in the Kingston government offices, give us a good idea about the travels of these measures. They were made in York before May 26<sup>th</sup><sup>10</sup> and were sent to the government secretary in Kingston where the Standards were kept. George Prowse, a tinsmith with his office in Montreal,<sup>11</sup> was given the task of adjusting the new measures to the correct size and weight of those Standards. A receipt, dated May 29<sup>th</sup>, indicated that an assistant of Prowse was paid 15 shillings for the work.<sup>12</sup> In today's currency that would be equal to 160 dollars.

They were then taken to the Custom-House Wharf in Kingston to John Greer, a Hamilton Commission merchant<sup>13</sup> who put them aboard the steamship "City of Toronto". From there they went to Greer's Hamilton warehouse, and then on by land to Woodstock.

Toronto May 26<sup>th</sup> 1843

B Harrison  
To H Piper at

To 1 Set of Weights & Measures £34-0-0  
Leases &c ————— 3-6  
Packing Case ————— £34-3-6

Sir Above is the bill of My Mr. Prowse  
relates of - agreeable to your order of the  
9<sup>th</sup> inst. I make no charge for the freight  
as I do not know what it will be but  
I think it will be considerably less than  
the last as they went by stage - and cost £1-0-0  
I have come as near as possible in weight &  
size - but think that the Weights & Measures will be

Letter from B. Harrison, Brock Member of Parliament, to Hiram Piper, agreeing to cost of 34 pounds for weights and measures. (See ref. 10)

<sup>10</sup> Ibid, May 26, 1843

<sup>11</sup> LAC, Canadian Directories, Montreal Directory -1842-43

<sup>12</sup> LAC, June 2, 1843, RG5 C4 Vol. 3

<sup>13</sup> LAC, Canadian Directories, Canada Directory for 1851, p.102 --- See Also P.86 (top)

**Custom-House Wharf.**  
KINGSTON, 29<sup>th</sup> May 1843

J. B. Harrison  
To John H. Greer, Esq.

Freight per Receiver - City of Toronto

MARKS & NUMBERS.	PIECES.	DESCRIPTION OF PROPERTY.	WEIGHT.	AMOUNT.		
				£	s	d.
	1	Box (Weights & Measures) By Ship			4	9
					1	3
				£	6	0

Attest  
J. H. Greer  
J. Harrison

Bill for the Shipping of the Weights and Measures aboard the "City of Toronto" to John H. Greer, a Shipping Agent in Hamilton. (See Ref. 12)

Toronto June 30<sup>th</sup> 1843

Enclosed of the 24<sup>th</sup> inst is at hand enclosing  
£4 for 36. 2. 6 in full for the Weights &  
Measures for the Bracke Dist<sup>ts</sup>, which I beg to  
say was of timely service to me. There is some  
one or two other Districts that ~~have~~ are in want of  
Weights & Measures, on it has been so intimated to  
me, by I refer them to the Provincial duty and  
suppose that I am right in so doing —

I am dear your  
Sd<sup>ts</sup> servant  
H. Piper

J. Douglas Harrington Esq  
Provincial duty office  
Kingston

Letter, Piper to Harrington, confirming that he had Received Payment (See Ref. 13)

Two examples of the 1843 Brock measures are presently in the collection of the Woodstock Municipal Museum and show the marks that Piper stamped on them. Those marks were "BROCK. DISTRICT. 1843."



*Brock District Measures Dated 1843 – Pint and Half Pint*



*Photos Courtesy of the Woodstock Museum NHS*

## County of Oxford – 1850

The District of Brock was abolished in December of 1849 and Oxford County Council was established. On January 1, 1851, Woodstock became the county town and on January 6, the first meeting of the new town council was held. The census of that year recorded 2112 inhabitants.

When a market was established in 1853 it was evident that weights and measures were needed. The County concluded that the earlier ones were in fine shape and could still be used. A study of the two surviving measures shows that the Council had these stamped with the name of the new county on the side opposite the earlier marks, thus saving the cost of a new set. The new marks are "(Crown Symbol) V.R. County Oxford S.M." Hiram Piper of Toronto is recorded as having made the set. The entire set was shipped back to the Piper firm so that the new marks could be added.



*The Same Measures, Re-stamped "County Oxford" in 1853*

The Archives of the County of Oxford has an interesting selection of documents from the 1860 to 1870 period that discuss these weights and measures.

Several letters trace a local man through two troubled years of his tenure as Inspector of Weights and Measures. On January 15th of 1861 an Ingersoll man by the name of James Izard, was appointed to be both Inspector of Bowling Alleys and of Weights and Measures. The appointment included a provision for his pay. "He shall receive from the Treasurer of the county, ten per cent on all Monies received by said Treasurer from account of Licences granted to Bowling Alleys, as his Salary."<sup>14</sup>

Izard started his job soon after his appointment. Council had passed a resolution on Dec. 10th, 1861, setting out the locations and dates for the inspections to take place. It started - "at Daly's Hotel Ingersoll on Tuesday the 14th Jany next (1862)" and after listing six more locations in different towns, ended up at "Hewstons Hotel Thamesford -Wednesday 6th Feby"<sup>15</sup>. All were places where liquor was available.

By the middle of June in 1862, the Council had heard several complaints about him, and appointed a committee to "sit on Mr. Izard's case". Several letters have been preserved and contain interesting observations about Izard's job performance. Most customers complained about being overcharged, while others tell of his drunkenness. A Princeton merchant reported "- he was hardly able to stand alone". When he went to check the measures, "he could not fill a measure for half full when he would spill the contents all over the floor". Another Princeton man wrote a four-page letter with several complaints. Izard was "unfit because he is an intemperate Man & one that not only attempts to perform the duties of his office while he is intoxicated but does not scruple to charge and receive unlawful fees for doing so." Also, "-he was too stiff and stupid, from the effects of Liquor - to know whether weights and measures were right or not".<sup>16</sup> The Committee also heard oral testimony from some "highly respectable people". They recommended his dismissal and, so he was let go on 25th June 1862.

The next year, in January of 1863, there was a dispute with the Great Western Railway, over the accuracy of the County weights. The Council wrote to Hiram Piper & Brother in April to get advice about the railroad's claim that the County weights were nine pounds short in every 1000 pounds. The Piper firm replied that "the best and cheapest mode to adopt" was to send them to their premises to "be adjusted by the Provincial Weights and Measures in our possession".<sup>17</sup> In addition, Piper quoted a price of \$160 for a new set of Standard Weights and Measures.<sup>18</sup>

A letter from the Piper Company dated May 14th, 1863, stated that the weights and measures had been returned by Express. He had "put them all in as good shape as I possibly could, they were in a very filthy state." Another letter of May 28th expresses Piper's pleasure that his work on the measures had pleased the Council.

A note from May 1863 lists the equipment in the County's possession that had been passed on by the retiring inspector. It lists the full complement of items needed by the inspector.

"Seven Winchester Measures and Six Wine Measures

Seven Weights, 56 lbs. to one pound

Seven Small Weights, 8 Ounces to 2 drams

Nine Small Steel Stamps and Five Iron Brands

One Large Beam and iron Scales

One Small Beam and brass Scale

One standard yard Measure

Received the above in good order from David White, City Clerk."<sup>19</sup>

<sup>14</sup> Archives, County of Oxford, By-Law 74, Sec. 1 & 2

<sup>15</sup> Archives, County of Oxford, Dec. 10, 1861

<sup>16</sup> Ibid., RG2, Series 4 - Clerk, Subseries A - Petitions, June 23, 1862

<sup>17</sup> Ibid, RG2, Series 4 - Clerk, Subseries 2 misc., file 11 Apr. 7. 1863,

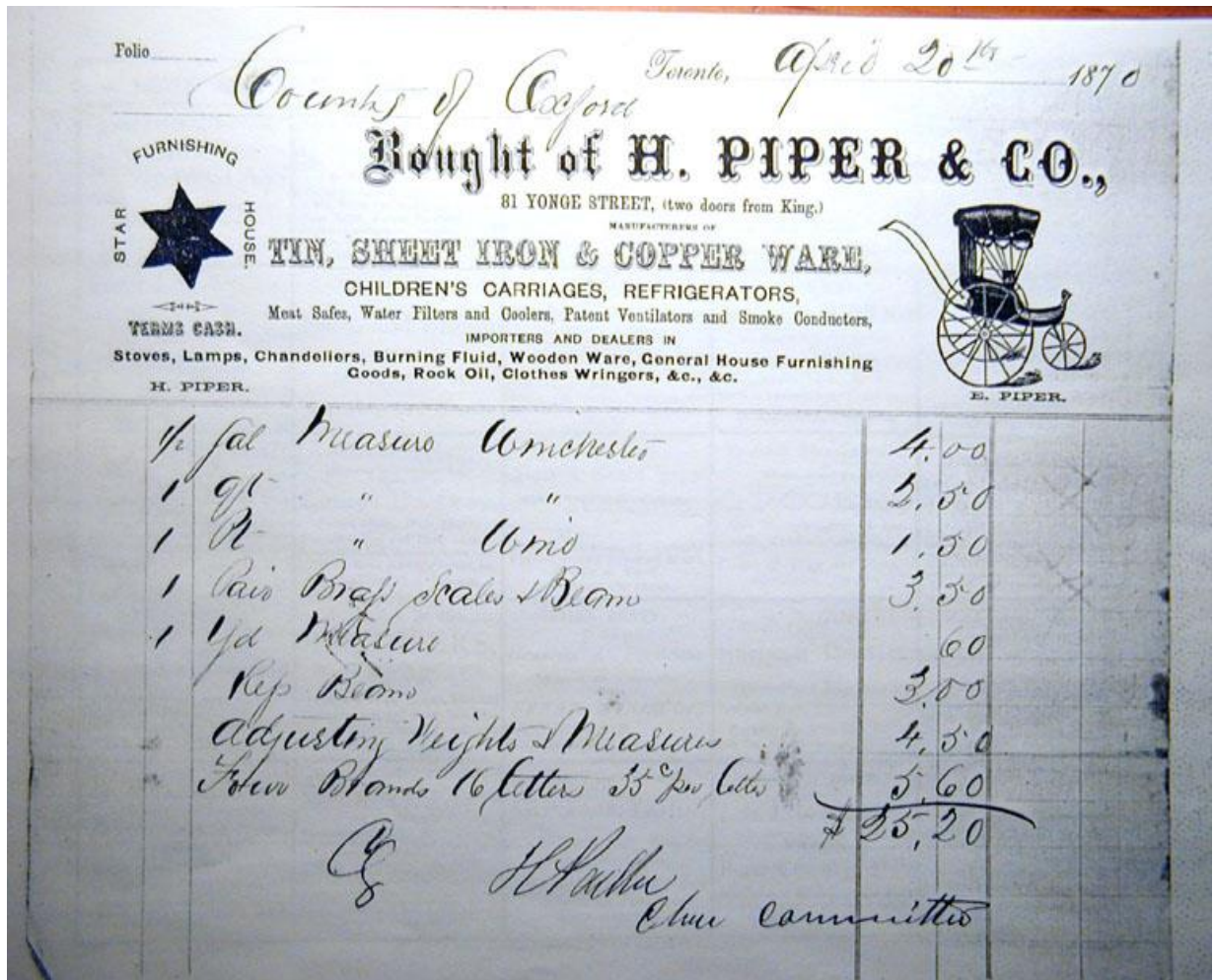
<sup>18</sup> Ibid.

<sup>19</sup> Loc. Cit. Bil from H. Piper Chap #20, P.

Missing from this list is one Winchester, one Wine measure and a 1-dram weight.

The County, at some later time must have noted the missing items and ordered replacements. A receipt from H. Piper & Co. dated April 20, 1870 shows the purchase of a new Wine measure along with two Winchester measures, a one quart and a half gallon. The Council must have been aware that the Imperial system was to be introduced within a few years and these would be outdated.<sup>20</sup> However, the inspection system had to continue until that time and so any lost or damaged equipment had to be replaced.

Hiram died in 1866. By this time his nephews Harry and Edward had taken over the business. H. Parker ran the office and signed this bill. Shortly after this date Parker began his own coppersmith business.



Invoice to the County of Oxford from H. Piper and Company, April 1870

Oxford County Archives

<sup>20</sup> Ibid, " " " Subseries E County Buildings and Property

The County Council asked R. W. Sawtell, who was the inspector in 1870, for his comments on the duties that he had performed during the year. On December 13<sup>th</sup> he submitted a thoughtful letter recounting the duties he had carried out that year. He reported that the standards had been sent to Toronto for adjustment. He stated that some articles had not been returned by the previous inspector and so were now being replaced by the Piper Company.

Sawtell got the Standards back on April 26<sup>th</sup> and he immediately set to work, only to be “prostrated with sickness which laid me aside from work for a month” He went on to say that “unfavorable weather through the summer and fall have prevented me from completing my tour through the whole County.” He did, however “spend every Saturday forenoon at the market in Woodstock”. The gross receipts for his “part time work” amounted to \$300 for the year. If we compare wages from 1870 to today, the \$300 would be roughly equal to \$34,300.

He commented about the inspection of measures. In respect to “Wine Measures, I have not found 10% stamped, and in some localities not 5%. In ordinary counter weights at least 80% have been found incorrect, either with or without a stamp - the stamping, however recent, being no guarantee of correctness.” He gave numerous examples of incorrect weights.

“The plan adopted by the council of requiring the Inspector to call, unannounced, on all parties, in my opinion is the correct one. My first duty has been to pass through each establishment and take an inventory or collect together all articles used by them. In this way scales have been brought to light that have been used for twenty years without a stamp, and in very many stores no Inspector had ever called, in others Mr. Laudon or Mr. Izard were the last”.

“I have been under the necessity of breaking very many measures, some of them new; which should be considered an injustice to the parties who bought them in good faith. The only remedy would be in the amendment of the Act to oblige makers to sell none but stamped measures.” This suggestion was adopted when Imperial measures were introduced in 1874.

He went on to advise against using measures for “gummy materials” such as oils and varnishes, because so much of the material stuck to the container, the customer was cheated out of the full measure. Spring balances, he said, were unreliable and should be condemned. He suggested that there were numerous instances of people having devices that were not measures but had evidence of being used as such. An example would be a container with no markings but was similar in appearance to a pint or quart but of less capacity. He suggested that the inspector’s testimony should be sufficient for a conviction.

His final point was that the fees for the inspector’s work were too low. “– no man can honestly do the work of a thorough examination once a year on the fee allowed by law.”<sup>21</sup> Mr. Sawtell did not remain in the position much longer. His successor, Mr. James Scarff worked during 1873 and produced a report at year-end that with a couple of exceptions was a close copy of Sawtell’s earlier report. Scarff claimed that he worked fifty-five full days plus most Saturday forenoons. “The gross receipts received during the year amount to \$103.80. I have usually had a man to assist me. I have paid expenses from this amount - \$85.79 which leaves twenty dollars and four cents for my services.” After repeating many of the same opinions as his predecessor, he recommended, “all the weights be sent down for adjustment.”<sup>22</sup>

Scarff presented another report in December of 1874. This time he devoted “27 days to the work—for which I have received the sum of \$62.27, an average of \$2.30 per day, a large portion of this having been paid out for horse hire and assistance.” He added “after many days of hard work and long journeys I did not make my traveling expenses”.<sup>23</sup>

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<sup>21</sup> Ibid., Series 4 Clerk, Subseries E # 14

<sup>22</sup> Ibid., Series 4 Clerk, Subseries Z # 14

<sup>23</sup> Ibid., Series 4 Clerk, Subseries Z # 16

## CHAPTER TWELVE - Western Ontario After 1849

### Huron District

#### United Counties of Huron, Perth and Bruce

The Canada Company founded Goderich as the seat of government of the Huron District. As the population grew, the townships to the east felt isolated and by the mid 1840's plans were being made to separate Perth County from Huron-Bruce.<sup>1</sup> A court house was being built in Stratford and upon its completion the system of justice and self-government would apply.

Perth was made an independent county under 12 Vic. Cap. 78 of 1849, passed on January 1, 1850. Full responsibilities of municipal government were assumed on January 24, 1853.

A meeting was held on May 6th, 1852 in the Council Room in Goderich where it was moved "that a set of standard Weights and Measures be provided by this council, to be placed in the County Town, and an inspector of weights be appointed, his salary to be derived from tolls payable by individuals making use of said weights, these tolls to be regulated by this council."<sup>2</sup> The measures for Huron-Bruce were acquired by 1859 because the Canadian Almanac and Directory of that year listed James Small as the Weights and Measures inspector.<sup>3</sup>

### City of Stratford 1858

Four copper measures with brass rims and "STRATFORD" marked on each, were found at a Toronto auction in December of 1998. Three were stamped Winchester, the other marked Wine. The capacity and SM (for Standard Measure) was also impressed on the front of each. It was first thought that they were English, but after some research it was determined that they were part of a set that was made for the town of Stratford in Western Ontario.

Stratford had gained town status in 1853 and was incorporated in 1858. A market building had been erected in 1857.<sup>4</sup> An entry in the City Council Minutes of October 11, 1858, states, "The Reeve was instructed to procure a set of Weights and Measures, duly stamped under authority of Government."<sup>5</sup> The local Stratford newspaper reported in January of 1859, that there had been a town council meeting the previous evening. Short excerpts from the minutes stated - "there were some accounts for weights, scales and measures, ordered by the old council."<sup>6</sup> October was the time for local elections to be held, so the reference to the "old" council must refer to the autumn meeting of the previous year. We can assume then, that the measures were delivered before the end of 1858.

An entry in the hand-written Council minutes in January 1859 states "account to John Riddell for market scales, \$104.50, Passed".<sup>7</sup> This shows that a market was being set up in the town, and the weights and measures referred to above, were for the use of that market. During that same meeting, the record notes, "T. S. Byers made application for office of inspector of Weights and Measures".

The measures are like those made by Hiram Piper although there is no direct evidence that his firm was the maker. The style of the lettering is quite different from the other Piper examples of that period, so it is possible that another coppersmith produced this set.

<sup>1</sup> An Act to authorise the Governor General to Issue a Proclamation --- County of Perth ---to be Separated from - United Counties - - 16 Victoria, 1852

<sup>2</sup> Minutes, Municipal Council of the United Counties of Perth, Huron and Bruce, 1852, p. 8, article 55

<sup>3</sup> Canadian Almanac and Directory, 1858-1859, (Internet Archive)

<sup>4</sup> History of the County of Perth, William Johnson 1903, p. 472.

<sup>5</sup> Stratford City Council minutes, 11<sup>th</sup> October 1858, Stratford Archives

<sup>6</sup> Stratford Beacon, Friday, January 21, 1859, Stratford Archives

<sup>7</sup> Stratford City Council minutes, 24th January 1859. P. 110 #5, Stratford Archives



*City of Stratford Measures Used in the Market*

*E. Little Collection*

## County of Perth – 1859

In January of 1859 Perth became a County, having separated from Huron-Bruce. In a period of four days starting on the 27th, the council received six applications for the job of Inspector of Weights and Measures, a job that was not authorized until the by-law was enacted on February 24th. The very next day, somewhat belatedly, the council considered a motion to direct the County Clerk to “obtain a complete set of standard weights and measures for the use of this County in accordance with the provisions of the Act.”<sup>8</sup> The motion lost by a vote of 11 nays to 4 yeas! The situation must have been settled soon after, because in a Stratford Beacon newspaper item on March 4th, 1859, it was stated that the clerk had been authorized to procure a complete set of weights and measures for the County.<sup>9</sup>

A by-law was passed on Feb. 24, 1859, “to appoint an inspector of Weights and Measures”.<sup>10</sup> Soon after that, Thomas Smith was appointed to the job.<sup>11</sup>

No examples of Perth County measures are known to have survived.

<sup>8</sup> Archives of Ontario. - Act, 22 Vic. Cap. 99, Section 274

<sup>9</sup> Stratford-Perth Archives -Stratford Beacon, Fri. March 4,1859

<sup>10</sup> By-laws of the County of Perth, no. 40, p. 11

<sup>11</sup> Ibid, p.19.



## County of Grey, 1856



*Grey County Wine Measures – Quart and Half Pint 1856. Note the Error in the Spelling of “Grey”.*



*Grey County Wine Measures - reverse* E. Little Collection

The two measures shown above were found by an antique dealer and were purported to have come from a tavern in Formosa Ontario, where they had been used for many years. The story is questionable since these items were never intended for use in public bars or taverns.

The letters that were stamped on them are like others made by Hiram Piper who had a firm hold on the making of such measures at this time. The Pipers would not have been familiar with that area of Ontario, and so the spelling error is understandable. John Blyth of Sydenham Village, now Owen Sound, was the first county Inspector of Weights and Measures.<sup>12</sup>

<sup>12</sup> A History of the County of Grey, by E. L. Marsh, Published by Grey County Council, 1931

## Town of St. Catharines – 1858

A half-gallon wine measure found in Dundas Ontario had marks that were difficult to interpret. There was a crown impressed into the metal. Beneath were the letters “V.R” and then the letters “T. St C”. The crown and “V.R” obviously represented the monarch. Since no other large town or county matched the “T. St C” initials and the St. was also obvious, it was determined that these letters represented “Town of St. Catharines”. Four more examples that matched the previous one was later purchased from a dealer in Hamilton. All five have the appearance and the same features as those made by Hiram Piper.

It is important to note that in an 1870 invoice to Oxford County, the Piper Company charged 35 cents for each letter stamped on some new measures the county had bought. If that was the custom, it would explain why the markings were kept so short.<sup>13</sup> The cost of stamping the full names would have been too expensive for a small municipality.

St. Catharines established a market in 1845. Local records show that on the first of February 1858, Robert Peterson was reappointed St. Catharines Market Clerk with “salary as last year”. Two weeks later Peterson was “appointed Inspector of Weights and Measures for this Town”. The Market Committee was then ordered to “procure proper scales, weights and measures for such inspections.”<sup>14</sup> Although no more information has been found it is probable that these measures were acquired at this time. On July 18<sup>th</sup> of 1859 it was decided that “the inspector of Weights and Measures be allowed ten cents for each inspection, to be paid by the party whose weights and measures were so inspected, and the inspector is hereby authorized to make a regular inspection Quarterly.”<sup>15</sup>

The County of Lincoln was established in 1862 with St. Catharines as its county town.



*Set of St. Catharines Measures Showing the Capacities*

*E. Little Collection*

<sup>13</sup> Bill from H. Piper for Stamping Oxford measures. See Chapter 10, Page 100 in this report, copy of bill is in Oxford file (Chapter 10, # 20)

<sup>14</sup> Ontario Archives, St. Catharines Town Council minutes, 1858 – (microfilm)

<sup>15</sup> Ibid

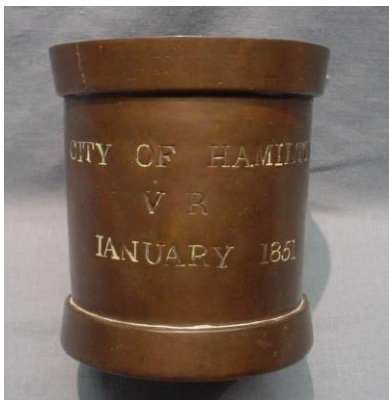


*Set of St. Catharines Measures Used in the City Market - Made in 1858*

*E. Little Collection*

## City of Hamilton

The District of Gore received a set of measures in 1825 and so Gore District inspectors covered the area from that time until Hamilton became a city in 1846. Shortly after that date, the new city council moved to establish their own system of weights and measures. We know that a set of measures were procured because a lone example turned up at an auction in 2015. As can be seen in the photos below, it was a copper pint and had a year date of 1851. The style of construction differs from any of the other examples that are known from that period. It is made entirely of copper, has slightly sloping rims, and has very different dovetailing on the bottom. Oddly, it used an "I" for a "J". Those differences from other known makers suggest that this example was probably made in the city by one of the several metal-working shops that had been established in Hamilton at that time.



*City of Hamilton, One Pint, Dated 1851*



*Private Collection*



*Dovetailing on Bottom*

## CHAPTER THIRTEEN - Southwestern Ontario After 1854

### Norfolk County- 1854

In February of 1854, P. O. Chaveau, the Provincial Secretary in Quebec City where the Government of Canada was then located, responded to a letter from E. P. Ryerse, the Revenue Inspector of the County of Norfolk. Ryerse had mistakenly written to him, asking for a set of weights and measures for Norfolk County. Chaveau directed him to apply to the appropriate person in Upper Canada. He then explained “that in consequence of the impossibility of procuring the Material necessary for the manufacture of a set of Weights and Measures in Quebec, the Manufacturers have refused to undertake to make them”. He suggested that the County “should apply to Mr. Hiram Piper, Tinsmith of Toronto (who for many years has been employed by the government to make such articles) to prepare the Standard Weights and Measures they are in want of.” He continues, “I should add that Mr. Piper has in his possession a set of Standard Weights and Measures.” He then suggested that “they should be examined and compared by some properly qualified Inspector other than Mr. Piper himself.”<sup>1</sup> (See page 128 for a copy of this letter.)

Over four years passed before an enquiry was made to Piper (on November 8<sup>th</sup>, 1858) by Ryerse, who as Revenue Inspector was also Norfolk’s Inspector of Weights and Measures. Piper responded that his “charge for a full sett of Brass Weights and Copper Measures with scales and stamps complete is Forty-Five Pounds. (Signed) H. Piper and Bro.”<sup>2</sup>

A wage of £45 in 1859 would equal close to \$30,000 today. Such an expense would look very large to people of that time and might explain the four-year delay. It would also explain why in Norfolk a Committee of Finance was formed early in 1859 to examine the costs. They recommended that the Quarter Sessions be asked to obtain the Standards for the County, hoping that the Court would reduce the costs. They also recommended that the appointment of an inspector of Weights and Measures be deferred until the next session.<sup>3</sup>

The record of a Council meeting in late December of 1862 shows that a man had asked in June to be appointed to the position of inspector of Weights and Measures.<sup>4</sup> The response was that such an appointment “would at present be premature as no standards have yet been procured, they therefore recommend that no appointment be made at present.”<sup>5</sup>

The story ends with the County records for the year 1866 where Thos. W. Walsh, the County Surveyor, is shown as having paid \$163.00 for weights & measures.<sup>6</sup>

### Haldimand County – 1856

Measures from this county marked with the date 1856 are presently in two collections. Five are displayed in Ruthven House, a historic residence near Cayuga in Haldimand County. Two others, a Wine gallon and a Winchester gallon, are in a private collection.

The Act that was passed in 1849 stated that “any City, Town or Incorporated Village, in Upper Canada shall appoint an Inspector and acquire Standard Weights and Measures for their use”.<sup>7</sup> There was very slow movement by many councils to implement the system, which depended upon the acquisition of the full sets of inspector’s standards. There was much resistance of the rural councils to acquire those standards due to their high cost.

<sup>1</sup> Norfolk County Council Papers, Vol. 1-3, page 104, 1859 - 7, Brook- Donly Museum, Simcoe

<sup>2</sup> Ibid “ “ “ “ “ “ “ “ “

<sup>3</sup> Ibid – “ “ “ “ “ “ “ “ -7a

<sup>4</sup> Ibid “ “ “ “ “ “ “ “ 1862 - #15

<sup>5</sup> Ibid “ “ “ “ “ “ “ “ - #15a

<sup>6</sup> Receipts and Disbursements, County of Norfolk, Archives, page 4, Sept. 30, 1866, Brook Donly Museum, Simcoe

<sup>7</sup> 12 Vic. Cap. 85 – Chap. 9 (p. 100)

More than six years after the legislation was passed, William Hall of Oneida expressed his desire to be “the Inspector of Weights and Measures for this Municipality”.<sup>8</sup> A little more than a month later, on March 11, 1856, the Council granted Mr. Peter Campbell the appointment.<sup>9</sup>

A letter from the Provincial Secretary was read into the council minutes that year on June 3<sup>rd</sup>. It “related to the standard of Weights and Measures to be furnished to the inspector thereof for this County.”<sup>10</sup> The County Archives has a copy of a letter indicating that Piper’s invoice was sent on the 6<sup>th</sup> of August.<sup>11</sup> A response from the Clerk stated that the Council was in recess and would meet again in November, at which time the account would be paid. The invoice included a charge for crating and shipping, which was an additional fifteen shillings and nine pence. It was paid, promptly at the beginning of November.<sup>12</sup>

Peter Campbell picked up the “sett” from the express office in Hamilton on November 4. Hiram Piper and Brother were paid £45 for the Standards.

Five of the set of measures are now in Ruthven House, but there is no information about their history or their association with the house. The Thompson family, the original owners of the estate, were part of the English gentry who received large acreages from the Crown in the late 18<sup>th</sup> century. David Thompson of Indiana, (an abandoned village on the Ruthven property) represented the county in the Legislative Assembly in 1846.<sup>13</sup> The measures were not needed after the Imperial system came into use in the 1870’s so these items might have been kept by the family as curiosities.

Two other examples, both gallons from the same set, were purchased in 2013 from the collection of a man who frequented auctions in the 1970s.



*Ruthven House near Cayuga, Ontario*

<sup>8</sup> Archives, Haldimand County Council Book of Minutes, 1851 to 1870, Jan. 28, 1856

<sup>9</sup> Ibid, Mar. 11, 1856

<sup>10</sup> Ibid, June 3, 1856

<sup>11</sup> Archives, Haldimand County, Letter to Piper, Aug. 9, 1856

<sup>12</sup> Ibid, “ ” Accounts, Tues. Nov. 4, 1856

<sup>13</sup> Brown’s City & Home Directory, 1846-7, Publ. by Geo. Brown, 29 Yonge St. 1846



County of Haldimand Measures, from Half Gallon to Half Pint – 1856.

At Ruthven House

Office County Clerk, Haldimand  
 Cayuga August 9<sup>th</sup> 1856

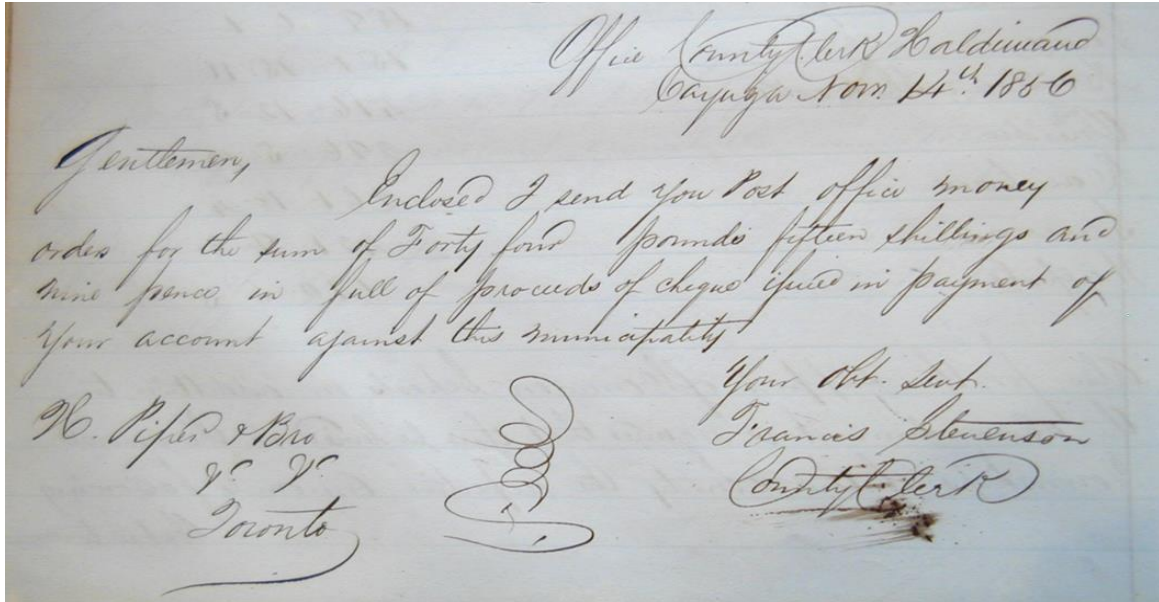
Gentlemen

I am in receipt of yours of the 6<sup>th</sup> Inst and in reply beg to inform you that your account will be submitted to the Council at its next sitting in the month of November next, when I will forward you the amount such is the course adopted with all accounts against the County received during the vacation between the sittings of the Council as by the Statute is directed. Hoping that this may be satisfactory

I am  
 Your obt. Serv<sup>t</sup>  
 Francis Stevenson  
 County Clerk

Messrs. Piper & Bro<sup>r</sup>  
 Toronto

Letter to Piper & Brother Concerning Payment for Set of Measures for Haldimand County, 1856



**Haldimand Measures - Letter Enclosed with Final Payment, November 1856** Haldimand County Archives

## Wellington District - 1840 and Wellington County - 1849

This District was formed in 1840 from the western portions of the District of Gore. It consisted of Waterloo and Wellington Counties with Guelph as the district town. Because it was such a large area it was decided that it was to have two administrative areas. Following the example of the larger areas of England, the concept of “Riding” was used so that there was a North and a South Riding in the County.

District officials were named at the first meeting of the Court of Quarter Sessions on July 28<sup>th</sup>, 1840, Mr. A. Baker being appointed as the first Inspector of Weights and Measures.<sup>14</sup> No records were found that showed when the Standards were acquired.

Due to the increase in population, the Legislature in 1849, split the District and divided it into two Counties. The northern part of the old District became Wellington County, also with two “ridings”. In 1853 the south portion of the earlier District became the County of Waterloo.<sup>15</sup>

The minutes of the Council meeting on the 14<sup>th</sup> November 1855 records an application from Joseph Mimmack of Guelph, who applied for the position of Inspector of Weights and Measures. He was given the post as inspector for the South Riding of Wellington, while

COURT HOUSE, GUELPH,  
14th November, 1855.

The Council having met this morning pursuant to adjournment:  
The Warden in the Chair.

PRESENT:

Messrs. Ross,	Messrs. McKieman,	Messrs. Sturtridge,
O'Reilly,	McGill,	Lee,
Mitchell,	Whitlaw,	Hood,
Stirton,	Dobbin,	Smith, (Guelph)
Kelly,	Spence.	

The Clerk read the minutes of yesterday's proceedings.

The Warden read an answer from the Secretary of the Guelph Grammar School Trustees, stating his inability to answer the Resolution of the Council at such short notice.

The Warden read an application from Joseph Mimmack, applying for the office of County Inspector of Weights and Measures.

Moved by Mr Smith, Guelph, seconded by Mr Ross,

That Mr Joseph Mimmack, of Guelph, be Inspector of Weights and Measures for the South Riding of Wellington, and Mr Daniel Kribs, of Elora, be Inspector for the North Riding, and that the Clerk procure an additional set of Weights and Measures. Carried.

**Wellington Council Minutes 1855, Referring to Inspectors for the North and South Ridings**

<sup>14</sup> The Annals of the Town of Guelph, Page 54

<sup>15</sup> Local History of Wellington County, County of Wellington Website, 2013

Daniel Kribs of Elora was made Inspector for the North Riding. The Clerk was instructed to “procure an additional set of Weights and Measures”, for the second Riding.<sup>16</sup> However, the expense of that second set must have caused the Council to cancel that purchase and have both inspectors use the one set. That set of measures was acquired in 1856, as evidenced by the dated examples that now reside in the Museum of Science and Technology in Ottawa. They closely resemble those that are known to have been made by Hiram Piper. Shown below is a half bushel Winchester measure with a broken handle that suggests years of hard use. It is stamped “County Wellington 1856”. Also, on display in Ottawa are a peck, a gallon, and a pint, all with similar marks. There are no marks that make any reference to another “Riding”, which seems to confirm that this set was utilised in both areas.



*Wellington County Half Bushel Dry Measure – 1856*



*Reverse Side - Wellington 1856*



*Wellington County Measures – Peck, Quart and Pint*

*Museum of Science and Technology, Ottawa*

<sup>16</sup> Archives, Wellington County, Series 1, Subseries 1, File 3, minutes, Nov. 14, 1855



At a County Council meeting on October 29, 1856, it was decided "That the petition of Mr. Joseph Mimmack be granted and that he have the Weights and Measures properly tested forthwith."<sup>17</sup> In March of 1859, he signed a receipt showing that the County Council had paid him "six Dollars to defray expenses of a Journey to Toronto to adjust County Weights".<sup>18</sup> It is not known why there is a three-year gap between the two notes. Even more puzzling is the reason for testing a new set of equipment, since they had been made in 1856.

Receipt for Money Spent on Trip to Toronto to Adjust Council Weights

Wellington County Archives

Inspector's Yearly Salary – North Riding of Wellington County

Wellington County Archives

Another receipt, this time for the yearly salary of Edward Newman, the Weights and Measures Inspector for the North Riding, is dated 7<sup>th</sup> May 1861.<sup>19</sup> His pay for the year was Thirty dollars. This is an indication that at least some inspectors were paid a salary at this time. (See *town of Hamilton, 1854*) In most cases, especially in the earlier days, the inspector was awarded a portion of his fees.

Two market slips, shown below, are from the Town of Guelph Market Scales and are very rare examples of the work of the Market Clerks. One slip shows that almost a ton of carrots had been weighed that day in November. The other shows the much more common load of hay and its weight.

<sup>17</sup> Ibid, Archives, Wellington County “ “

<sup>18</sup> Ibid, Archives, Wellington County “ “

<sup>19</sup> Ibid, Archives, Wellington County “ “

Series 2, Subseries 1, File 2, Hand written – 1842 - 1887

Council minutes, Page 4, Oct. 28, 1856

Council minutes, , March 24, 1859

**TOWN OF GUELPH:  
MARKET SCALES.**

Nov 6 1864

Load of Carrots  
From John Whitman to Col Hewitt

GROSS ..... 20.60 ..... LBS.  
TARE ..... 11.00 ..... LBS.

NET. 19.60 ..... LBS.

Geo. Robinson Market Clerk.

**TOWN OF GUELPH.  
MARKET SCALES.**

Jan 7 31 1868

Load of .....  
From W. H. ... to Col Hewitt

GROSS ..... 34.50 ..... LBS.  
TARE ..... 8.40 ..... LBS.

NET 26.10 ..... LBS.

MARKET CLERK W. H. ...

Wellington County Archives

## County of Waterloo – 1849

In the 1849 Legislative changes, Wellington District was divided so that the southern portion became Waterloo County and the north remained as Wellington County.

Before that date, inspectors named by the Wellington District Magistrates had carried out the inspection of weights and measures with a set of equipment had been acquired by that earlier District. When the two split and became separate counties, Wellington County retained those items. In January of 1859, a request was made by Waterloo County to either share the equipment

or receive compensation from Wellington.<sup>20</sup> There was no attempt by Wellington Council to compensate Waterloo, even though Waterloo's argument was sound. The Waterloo County Clerk was then directed "to ascertain how and where they are to be obtained and at what and whose cost".

On January 26, 1859, Waterloo began to discuss the rules that would govern the new system. They decided that "for every weight and measure stamped by the inspector, he shall receive the sum of ten cents, and no fee on any weight or measure found correct. He will make two inspections each year."<sup>21</sup>

In the council minutes there is a reference to a June 7, 1859 "communication" from the county clerks of Wellington, York and Peel regarding weights and measures. The contents were not included in the minutes, but it is likely that it was a reply to a Waterloo request for information about the makers of the measures so that the County could place their order for a set. Later at the same council meeting, there was a motion "that the Warden be authorized to purchase a set of weights and measures, the cost of which is not to exceed one hundred and sixty dollars" This amount is interesting, because it indicates that the maker they are considering must be Hiram Piper. His price for the measures was stated in several documents as being \$160.00.<sup>22</sup>



Twenty-Eight Pound Weight Marked  
County Waterloo Doon Heritage Crossroads

The next day in a by-law "to provide for expenses for 1859" there is "the sum of one hundred and sixty dollars for weights and measures." The treasurer's report of December 31 shows listing, - "sett weights and measures \$160.00",<sup>23</sup> indicating that they

<sup>20</sup> Municipal Council of the County of Waterloo, Council Meeting, Jan. 26, 1859, page 14

<sup>21</sup> Ibid, P. 42

<sup>22</sup> Ibid, P. 23, No. 17, June 7

<sup>23</sup> Ibid, P. 24, No. 48, June 8

had arrived and had been paid for. The last mention of the topic is found in the 1860 Minutes, “the salary of the inspector of weights and measures be one hundred dollars per annum for inspecting and trying weights and measures once a year, over and above the legal fees”.<sup>24</sup> Two major changes occurred in this year. The inspector was now paid a salary and only one inspection was needed each year!

## Town of Galt –1849

The Town of Galt was created as a result of the Municipal Corporations Act of 1849. By 1852 the town council had written a by-law that authorised the appointment of a local inspector of weights and measures. His duties were listed in that by-law. He was to “carefully examine and compare all weights and measures that shall be presented to him, - and when found true, to Mark, Stamp or Brand the same, (if a measure, as near to the top and bottom as may be,) with the Stamp or Brand provided for that purpose”. If any merchant was using weights or measures that “had not been duly stamped”, they would be fined from two to five pounds and have the item seized and broken up. The third section allowed the inspector to enter any place of business to check all weights and measures that were being used. It held the inspector to a high level, stating that a breach of the rules would result in heavy fines. Section six allowed him “to charge Sixpence and no more”. Finally, he was ordered to “give one month’s notice to the news- papers of the village indicating the date, time and place “that he would attend with the stamps and copies of the Standard weights and measures used in buying and selling”<sup>25</sup>

The town enacted a by-Law in 1857 which specified that the market would run every day of the year except Sunday. It then listed the items that could be sold in the market. It included all farm produce except wheat. It excluded “hides, offal or any refuse, animal or vegetable matter that might occasion nuisance”.<sup>26</sup> The next section limited the sale of meat smaller than a quarter <sup>F1</sup> to butchers only. Finally, the butcher was required to be licensed by the mayor.<sup>27</sup>

The Council once again revised the Market rules in 1859, adding ones that were intended to be improvements. No agreements were to be made outside the market before the articles to be sold were in the market grounds. The price of wood was established according to the type and quality of the wood. Shingles were to be sold in bundles of specified sizes.<sup>28</sup>

## Western District Municipal Council – 1843

The Municipal Council of the Western District passed a number of by-laws in May of 1843. The first was “A By-Law to provide Standard Weights, Measures and Stamps for the Western District.”<sup>29</sup> It stated, “That the Warden be authorized to provide proper standard weights, measures and stamps as required by law, and that he do issue his warrant on the Treasurer of the District for a sum not exceeding twenty-five pounds in payment for the same”. The “stamps” were of two types. Hot iron brands used to burn symbols into wooden measures and stamps to mark metal measures to show that they had been checked for accuracy.

The following year, on February 14th, 1844 the Council met and “Capt. Vidal gave notice that he would to-morrow present a petition from J. B. Laughton, Inspector of Weights and Measures for the District, offering to procure Standard Weights and Measures for the use of the District on certain conditions.” The following day a council member outlined the “proposition of John B. Laughton to purchase for the use of the District, a set of standard Weights and Measures, on being allowed six per cent on the purchase money, until repaid”. The proposal was referred to the

<sup>24</sup> Journal, Proceedings of the Municipal Council, County of Waterloo, 1<sup>st</sup> to 6<sup>th</sup> Sessions, 1860, P. 42

<sup>25</sup> City of Cambridge Archives, ACC A988.184.29, Bylaw 40

<sup>26</sup> Op. cit., ACC A988.184.34

<sup>27</sup> Ibid

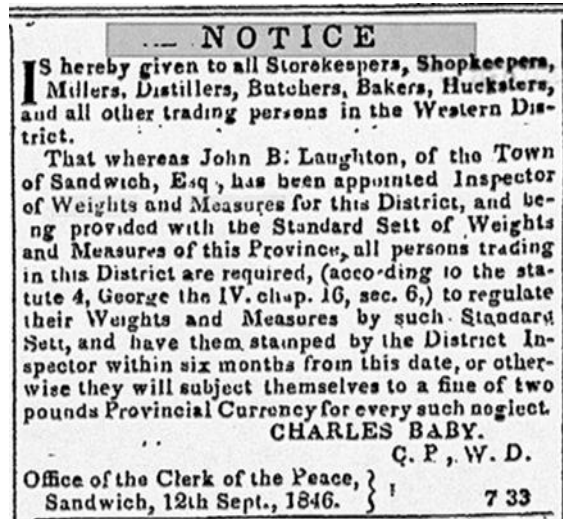
<sup>28</sup> Op cit. ACC. A988.184.35

<sup>F1</sup> A portion of the animal carcass, as in “hind quarter” or “front quarter”

<sup>29</sup> AO, Municipal Records of the Western District, 1843, P. 1, Microfilm, MSS 577, Reel

Committee on Finance who came back later to recommend “that a sum not exceeding Fifty Pounds be advanced out of the District Funds, for the purchase of Standard Weights, Measures as required by Law instead of paying interest of six per cent “.<sup>30</sup>

The Standards were acquired at some time thereafter, and the inspector announced in the Chatham Gleaner newspaper of September 12th, 1846 that he was ready to begin his work. Part of the announcement reads, “That whereas John B. Laughton, of the Town of Sandwich, Esq.,



has been appointed Inspector of Weights and Measures---, all persons trading in this District are required—to regulate their Weights and Measures by such Standard Sett---within six months from this date, otherwise they will subject themselves to a fine of two pounds Provincial Currency for every such neglect. CHARLES BABY, C.P., W.D. (Clerk of the Peace, Western District) Sandwich.”<sup>31</sup>

A letter dated July 1850, addressed to Charles Baby found in the Elgin County archives is from a new inspector, W. A. McCrue, who listed the dates and locations of areas which he proposed to visit in the month of August. He asked that it be sent to the local newspaper.<sup>32</sup>

## Elgin County – 1859

Elgin County separated from London-Middlesex in 1851 and was incorporated as a county in 1852. When the Statute of 1858 made the County responsible for operating the weights and measures system (See p. 91 # 7), the County began the process of complying with the new laws. On March 9 of 1859, the Council appointed two new inspectors and then requested the Clerk of the Council “to procure and furnish one set of weights, measures and stamps at the expense of the County”.<sup>33</sup>

Samuel McBride had been in business prior to 1851<sup>34</sup> and his brother Alexander appears to have joined the business shortly after. Both men were active in local politics. A history of Middlesex shows that a Samuel McBride was inspector of Weights and Measures in 1855. In the same local history, S. McBride was listed as a councilman in 1857.<sup>35</sup>

The County Clerk wrote on March 15th to A. & S. McBride, who at this time were a firm of coppermiths and hardware merchants in the town of London. He got a reply the following day. In that letter of March 16, 1859, which was signed A. & S. McBride, it was stated that the firm had already supplied the County of Middlesex and the Town of London with complete sets of weights and measures. They had used a heavy quality of copper, “the sett for the city when finished weighed 65 lbs. and was well lettered”.<sup>36</sup> The letter continued, “the finish in all respects was equal to the Pattern Sett which was imported from England”. This indicates that at least one person had travelled to Toronto to inspect and measure the official 1826 De Grave measures in the office of the Provincial Secretary. He then listed the weights and measures that he would supply and gave a price of \$150. This price was \$10 lower than that of Hiram Piper.

<sup>30</sup> Ibid, Feb. 1844, P.29

<sup>31</sup> Chatham Gleaner, Nov.10,1846

<sup>32</sup> Elgin County Archives, storage room 107, Box 2, file 11

<sup>33</sup> Elgin County council proceedings, 1852-1860, Elgin County Archives

<sup>34</sup> 1851 London Canada Directory, Access Genealogy, Online

<sup>35</sup> History of Middlesex, Canada, Published by W.A. & C.L. Goodspeed, 1889, pp. 222, 243, 247, 308

<sup>36</sup> Letter from A. & C. McBride, March 16<sup>th</sup>, 1859, Elgin County Archives, storage room 107, Box 2, file 11 # 32

The County Clerk received a letter on March 21, this time from Adam Hope, another London merchant, who seemed to support the proposal of the McBrides.<sup>37</sup>

The McBrides, in a letter of March 29, quoted a price of \$28 for the scales and beams. They continued, "if you still feel inclined to squeeze me down in the price— I will at this dull season further supply you with 3 brands, 2 of steel and one of iron for heating."<sup>38</sup>

In November of 1859 the Finance Committee of Elgin County Council ordered the payment of various accounts. Surprisingly, A. Hope & Co was paid \$100 for measures and weights while the Corporation of St. Thomas received \$80 for weights and beams.<sup>39</sup> It is hard to understand how the Hope company became part of the selling group. The cost of the measures is much lower than those proposed by McBride while the pricing of the weights and beams is beyond the cost quoted by McBride! It can be assumed that the two firms shared the work and the profits. Hope's business had suffered in the depression of 1857, but he worked hard to develop new work and he was able to turn his business around and become profitable.



*County of Elgin Inspector's Standard, 1859*



*County of Elgin Quart Dry Measure*

The measure shown above was recovered in 2014 from the descendents of the Elgin County Clerk of the 1850's, a man who had held the job for many years. Most measures from this early period were recycled, scrapped, or given away when Imperial Measure was introduced, since they were then considered useless. The somewhat corroded condition of this item indicates that it was stored away and forgotten for most of the last 150 years.

McBride made the measure much heavier than the examples made for other Districts and counties. The rims have a profile that clearly differs from the examples made by Piper.

<sup>37</sup> Letter from Adam Hope & Co. March 21<sup>st</sup>, 1859, Elgin County Archives, storage room 107, Box 2, file 11 # 28

<sup>38</sup> Loc. Cit, McBride, Mar. 29 #31

<sup>39</sup> Elgin County Council, 17 November 1859, Elgin County Archives, storage room 107, Box 2, file 11 # 180



*Maker's Name Stamped on Side*



*Close-up of Maker's Name*

*Elgin County Archives*

Other examples have been found recently and photos have been sent to the Elgin County Museum. A lawyer from California has for many years, been using this Elgin County pint measure on his desk as a pencil holder. This example has brass rims that differ from the McBride example as can be seen clearly in the photos on this page!



*Elgin County Wine Pint 1859*

## CHAPTER FOURTEEN- County of Brant – 1852

These two copper measures were found on internet auctions, each one stamped with “County Brant 1855” on one side. On the opposing sides, the larger had “Half Gallon Winchester V.R.” while the smaller had “½ Pint”. The larger example came from an antique dealer at Carrying Place near Trenton Ontario, around 140 miles from the county of its origin. The half pint was found later near Ottawa, having travelled even further away from its home.



*Brant County Winchester Measures –1855 –Half Pint and Half Gallon*

*E. Little Collection*

Brant County was created in 1852 from parts of Wentworth and Oxford Counties. The first reference to Weights and Measures is found in the minutes of the 1854 Brant County Council. “A committee was appointed to obtain a set of Standard weights and measures for this County.”<sup>1</sup> An order was sent to Hiram Piper & Co. on January 2, 1855.<sup>2</sup>

In the Council Minutes later in the year, the Warden laid applications before the Council from various men who asked to be appointed County Inspector of Weights and Measures.<sup>3</sup> There was a petition from Mr. William Murray, praying to be appointed to the same position. It was accompanied with a recommendation from William Alger and 56 others “in favour of the said appointment”. Later in the session, “The petition of Wm. Murray and the application of Mr. R. J. Sutton and Mr. John Hammill, for the appointment of County inspector of weights and measures, were referred to a committee.”<sup>4</sup> This Committee reported that the application of John Hammill should be accepted. (20<sup>th</sup> June 1855).

By the beginning of June in 1855, the council had received the bill from Piper, and possibly the weights and measures as well. The Council minutes stated, “On Motion of Mr. Malcolm, seconded by Mr. Findlayson, the account of H. Piper & Co. for furnishing weights and measures is referred to the committee on Finance”. The council must have requested that certain of the measures were to be made of wood or some other material, because, at the end of June, the following entry was made in the council minutes. “On motion of Mr. Malcolm, seconded by Mr. McNaught, the warden was directed to communicate with Messrs Piper & Co., informing them that the weights and measures furnished by them, are not made of the materials in accordance with their letter of date the 2<sup>nd</sup> of January last.”<sup>5</sup>

<sup>1</sup> Brant Archives, Minutes of the County of Brant Council, 1854, page 60

<sup>2</sup> Ibid, P.19

<sup>3</sup> Ibid, P.10

<sup>4</sup> Ibid, P.14

<sup>5</sup> Ibid, P. 24

The complaint was not resolved quickly enough, as the next entry explains. “That with respect to the weights and measures furnished by Messrs Piper & Co of Toronto, for the use of the county, having found that Mr. Hammill, the County Inspector, had received them and was using them under the authority of the Quarter Sessions, he deemed it advisable under the circumstances, to pay the account set up by Messrs Piper & Co., the County having been sued for it, and thus save the County the expense of further litigation in the matter, in which view he had the concurrence of the county solicitor.”<sup>6</sup>

When the Imperial system was introduced in 1875, the old measures were stored in an upstairs room of the County Courthouse in Brantford. A letter was found in the Ontario Archives, along with many other soiled and water damaged documents. It was dated June 21, 1905 and was a report from a committee investigating the need for repairs to Public Buildings. The letter stated that “Your Committee would also ask authority to dispose of certain old brass measures, chains and weights now stored in the upper part of the Court House as in their opinion they will ultimately be lost, and they are no use to the County in their present condition”<sup>7</sup>

These three items, the two measures as well as the weight, are good indications that many of the items mentioned in the above letter were not scrapped.

The 28-pound weight, shown below, was acquired at an antique market near Brantford but was reported to have been found recently (2012) in a Brantford house.



*Brant County 28 Pound Weight*

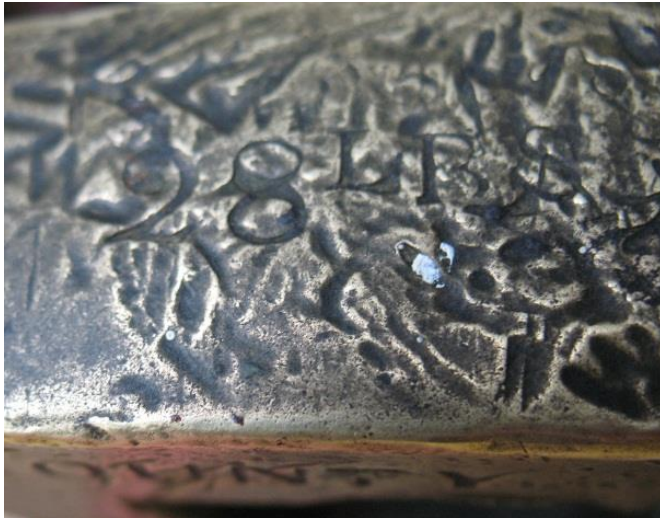


*Stamp of Maker- Hiram Piper*

<sup>6</sup> Ibid, P. 28

<sup>7</sup> Ontario Archives, RG 22-1824, File 6719, F 1551-3-0, Brant County Correspondence, B296146, Interim Box 301





*Mark on Handle- 28 Pounds*



*Date of Manufacture- 1855*

*E. Little Collection*

## Town of Brantford - 1847

The early community was founded on the Grand River, at the first upstream shallows that afforded a safe crossing. The settlement was named for the great native chief of the Six Nations, Joseph Brant. Since the river was navigable to Lake Erie, the low cost of transportation helped the town grow rapidly and it became an important agricultural and manufacturing center. The Provincial Legislature passed an “Act to incorporate the Town of Brantford” on July 28<sup>th</sup>, 1847.<sup>8</sup> The act laid out rather detailed ideas for regulations that the town was expected to adopt. Most aspects of town life were included in the rules that were listed in the Act. All taverns, ale-houses, and victualling houses<sup>(F1)</sup> were to be regulated. There were rules “to regulate the place and manner of selling and weighing hay, and the selling of fish, to regulate the weighing and measuring of coal, cord-wood and other fuel, salt and lime, to regulate measurers and valuers of artificer’s<sup>(F2)</sup> work, to regulate and assize<sup>(F3)</sup> the price of bread, to regulate the inspection of all weights and measures used or manufactured within the said Town, to seal the same and to appoint an Inspector for that purpose”<sup>9</sup> A Town Council was established and was given the task of setting up rules for the better functioning of the community.

Wagon loads of hay, straw, and other large bulky types of produce were sold by weight and there was a need for scales that could weigh those kinds of loads. In early days businessmen were allowed to install such scales on the side of a village street and charge a fee for his service. At this time however, such an arrangement was discouraged. In September of 1847, it was decided to move the scales owned by a Mr. Tupper. An entry in the town minutes of Sept. 1847 said, “Petition of John M. Tupper, praying for leave to remove his scales from the street”.<sup>10</sup>

By 1850, the Council had enacted 37 by-laws. The 38<sup>th</sup> was passed by April 15<sup>th</sup> of that year and was titled “To establish and regulate the Public Market”.

<sup>8</sup> AO, 10 Vic. Cap XLIX Act to Incorporate the Town of Brantford, 28 July 1847

Footnote 1--- victualling house --Eating place, restaurant

Footnote 2 -- Artificer-- A skilled worker; a craftsperson

Footnote 3---Assize-- Ordinance regulating weights & measures & prices of articles of consumption

<sup>9</sup> Ibid, P. 1550

<sup>10</sup> Brantford City Hall, Department of Records, Town Council Minutes Book, one, P. 9



Over the years, the duties of the inspectors shifted from an emphasis on the market to the policing of the whole town. New town by-laws show the shift. Here are two examples.

**By Law 143** - July 7, 1859

1 – “it is hereby enacted that an inspector of Weights and Measures be appointed for the Town of Brantford.” and “It shall be the duty of such Inspector four times in each year to visit all places within the said town---”<sup>16</sup>

**By Law 206** - 8<sup>th</sup> day of Feb. 1869

“The Corporation of the Town of Brantford enacts:

1. That David Hamilton be appointed Inspector of Weights and Measures for the Town.
2. That the said inspector shall in all respects be guided by the requirements of Statute 58 of the Consolidated Statutes of Upper Canada and by the requirements of any By-Laws of the Town of Brantford respecting the duties of Inspector of Weights and Measures.”<sup>17</sup>

**Firewood** - The supply of firewood was essential for early communities. Practically all heat and energy requirements of the settlers were met by the burning of wood and so the trade in this commodity was highly important. That importance is shown by the passage of four By-laws in the years from 1851 and 1860 which were concerned with the sale of wood in Brantford.

The standard measurement of wood was by the cord, which had easily measurable dimensions. A law was passed in 1851 which decreed that any amount of firewood under a cord had to be taken to an inspector who would give an accurate measurement and would assess the quality. The inspector was the clerk of the market who would charge a small fee for his work. Further rules attempted to control other aspects of the wood trade.<sup>18</sup>

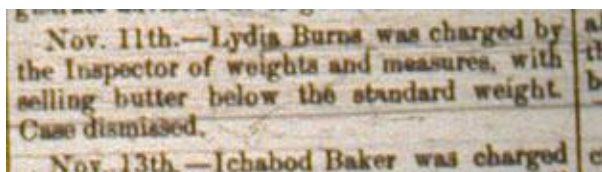
## Brantford Town Market

The market was first established in 1850 and was administered for several years through by-laws and rules that were passed but never published in a form to which the vendors and the public could refer. A revised law was passed in 1860. The city had rewritten the rules by that time and so the new regulations were printed in the form of a large 18 by 24-inch broadside, to be displayed in the market and on various other public buildings in the town. Copies are preserved in the city archives.

Three clauses in the broadsheet pertain to our topic.

**13** – Every merchant retailer, trader and dealer in merchandize, or property which is sold by measure or weight, shall cause their weights and measures to be sealed and marked by the Town Inspector of Weights and Measures.

**14** – It shall be the duty of the Inspector to inspect and examine at least twice a year all weights and measures used by any of the persons aforesaid, and if any such person shall refuse to exhibit any such weights or measures to the Inspector when required to do so by him, or in any manner obstructs such Inspector in the performance of the duties hereby enjoined on him. Such person shall be liable to the penalty hereinafter mentioned.



*Inspectors frequently charged Market Vendors with violations of the market rules. They were tried by a judge who at times dismissed the case - as shown here.*

*From the Brantford Expositor – November 1865*

<sup>16</sup> Ibid Brantford City Hall, Department of Records Town By-Laws Book

<sup>17</sup> Ibid, Brantford City Hall, Department of Records, Town Council By-Laws Book, By-Law 206, Feb. 8, 1869

<sup>18</sup> Ibid, By-laws 65, 88, 132, and 157

**15** – It shall be the duty of said Inspector to make a registry of all the weights and measures inspected and examined by him, in which he shall state the name of the owner and the street in which they reside, and whether such weights and measures are according to the standard of this province, and to deliver a copy of such registry to the Clerk of the Town Council every half year, and therein to report the names of all owners whose weights and measures are incorrect, or who shall refuse or neglect to have their weights and measures sealed and marked.

Finally, “all persons getting Weighing done at the Market Scales, or bringing hay to the Market for sale, shall pay to the Clerk of the Market the following fees

For weighing a load of hay and exposing the same for sale.....	25 cents
For weighing a load of goods or merchandize .....	25 cents
For weighing a load of grain or coal .....	12 ½ cents” <sup>19</sup>

## Weight of Bread

The Town regulations included the “assize of bread”, to ensure that bakers gave the customer full value when they were buying bread. A small broadside was produced by the town council and dated in December 1848. Prices were not fixed, but the weight of a loaf of bread was set at “- if more than one-pound weight (of flour), shall not be less than two pounds, and if more than two pounds four ounces (of flour), shall not be less than four pounds weight.” The wording is somewhat confusing. However, the populace must have understood the rule because this law remained in effect for almost 18 years.<sup>20</sup> The law stated that a fine of 5 shillings and up to ten pounds would be imposed if there was an infraction. Bakers were wary of this high fine and compensated by baking a larger loaf or giving an extra bun or biscuit. Similar rules were enacted in many regions and brought into use the term “bakers’ dozen”.

The 1848 law was repealed in 1866 and some new rules were added.

- “No deleterious materials of any kind” were to be added to the ingredients in the recipe. (Some bakers had begun to include alum and other additives to their recipe for bread).

- The weights of the loaves were fixed at two pounds and four pounds.

- “The Inspector of Weights and Measures--- with scales and weights of the lawful standard to be provided for that purpose by the Corporation and kept in the possession of the Inspector of Weights and Measures, proved and adjusted, ready for use at any time, to enter the shop or premises of any person or persons or other place in which bread for sale shall be exposed or kept, and there to inspect and weigh the said bread or any part thereof---“

- “That every vendor of bread shall keep scales and weights suitable for the weighing of bread, in a conspicuous place, in his or her shop, and every vendor of bread shall, whenever required by any purchaser thereof, weigh the bread offered for sale.”<sup>21</sup>

<sup>19</sup> Ibid, By-law 158

<sup>20</sup> Ibid, Brantford City Hall, Dept. of Records, Town Council By-Laws, Broadside-By-Law #18, to Regulate Weight of Bread, 1848

<sup>21</sup> Ibid, Brantford City Hall, Dept. of Records, Town Council By-Laws, #194, - to Regulate the Assize of Bread, 1866

**TOWN  
OF  
BRANTFORD.**

**BY-LAW  
NO. 18.**

**To regulate the Weight of Bread.**

**WHEREAS, it is necessary that the Bread offered for sale is of an uniform Weight.**

Be it enacted by the Mayor and Council of the Town of Brantford in Town Council Assembled:

1st. That from and after the passing of this By-Law, the loaves of Bread baked and offered for sale within the Town, if more than one pound weight, shall not be less than two pounds, and if more than two pounds four ounces, shall not be less than four pounds weight.

2nd. That it shall and may be lawful for the High Bailiff at any time during the day, to enter into any Bakery, Grocery, or other place where bread is exposed for sale, and weigh one or more loaves of the same, and if he shall find such bread under weight, according to the provisions of the first section of this By-Law, he shall forthwith seize all such bread so under weight, as forfeited, which said forfeited bread shall be given to the poor, by order of the Town Council.

3rd. That any person or persons who shall expose for sale any loaf or loaves of Bread contrary to the true intent and meaning of this By-Law shall, on conviction thereof, be liable to a fine of not less than five shillings nor more than ten pounds, besides costs; and in default of payment thereof, and if a sufficient distress being found, shall be committed to the common jail of the Gore District, or some other place of confinement for a period not exceeding thirty days.

(Signed)

**WILLIAM MUIRHEAD, Mayor.**  
[Brantford Courier Print.]

Brantford, December 30th, 1848.

## CHAPTER FIFTEEN- Makers - County & Town Measures c. 1860

There were eleven Districts when the 1826 measures were made and distributed. The rapid increase in population over the next 15 years meant that new districts had to be formed and so entire sets of the weights and measures were needed for each of those new areas. The first new district was Colborne, formed in 1841, followed by Simcoe and Brock districts, both in 1843. The only examples from this period that are now known to exist are those of the Brock District. Records show that they were made by **Hiram Piper** of Toronto. As we have seen, there is evidence that Piper had an agreement with the Upper Canada government at that time. Towns grew, and markets were established, so more sets were needed for the market clerks as well as for the county inspectors. The Acts of 1855 and 1858 forced local governments to make decisions about purchasing weights and measures. There were many competent coppersmiths by the mid 1850's and so other makers were able to supply some outlying areas.

**Alex McBride**, a coppersmith in London, is known to have made sets for local councils. The **Booth Company** of Toronto might also have made some of the sets

### Hiram Piper



*Brock District Measures (Stamped on One Side)  
Showing Date – 1843* Courtesy of the Woodstock Museum

Hiram Piper was identified as a maker of the Brock District measures in a letter from the Provincial Secretary to the Colborne District, dated January 19, 1842.<sup>1</sup> The letter was sent from T. Douglas Harrington (Provincial Secretary) to the Colborne Clerk of the Peace, W.T. Wrighton. It gave the name “Mr. Piper” as a person to contact “concerning the purchase of a set of weights and measures for the Colborne District”. Piper then quoted Wrighton a price of 45 pounds for the set.

A letter from the Brock District, dated April 25, 1843, was sent to the Provincial government in Kingston. It stated that “the District had never been furnished with a true standard set of weights and measures” and asked that the province supply them. A second letter was then sent to the province with the same request. The back of this letter has a notation written several days later by the recipient which said, “Mr. Piper, of Toronto, written to, to manufacture a Set - 9 May”.<sup>2</sup>

Two survivors from this set are displayed in the city museum in Woodstock. The year 1843 is stamped on each. It is the earliest date of any surviving measures from Upper Canada that can be attributed to a known Canadian maker.

<sup>1</sup> Fisher Rare Books Library, MSS gen 04.006 - A.L.S. to Secretary's office Kingston naming Piper as the maker of W&M.

<sup>2</sup> LAC, Letter, Apr. 25, 1843, RG C4, Vol.3

Other records show that Piper was probably involved in the manufacture of District and County measures earlier than 1843. The Secretary's office in Kingston (where Parliament was then meeting) wrote to Piper on May 9<sup>th</sup> and ordered the Brock set. Piper's bill, indicating the completion of the work and asking for payment, was dated May 26<sup>th</sup>, 1843, only 17 days later. It is not possible that the full set of measures and weights could have been constructed in such a short time. Piper must have had a set ready for any new order.

On the same Brock measures invoice that was sent to the District Member of Parliament, Piper referred to the shipping charge. "I think it will be considerably less than the last as they went by stage and cost one pound". The comment "the last" indicates that he had shipped others in the past. Colborne and Simcoe districts were organized earlier and one of them might have been "the last" he to which he referred. Refer to page 97 to see the Brock invoice.

## Life of Hiram Piper

Hiram Piper was born to Luther Piper and Mary (Tryon) Piper in Berlin Connecticut in 1805. Luther was a cooper by trade, and of English extraction. Hiram was the oldest child of six boys while the fourth oldest, Noah, who would also move to Toronto, was born in 1815.<sup>3</sup> It does not appear that any of his family members were metalsmiths.

Hiram's name appears in the 1828 "Directory of the Village of Buffalo", containing the "Names and Residence of the Heads of Families and Householders".<sup>4</sup> It lists people of the town who were resident there on the first of January of that year. Hiram Piper is listed as a "tin maker". He was obviously a resident there in 1827 when the information was collected for the directory and when he was 22 years old. It is probable that he had moved to Buffalo to serve an apprenticeship in metalworking. Apprentices in New York started their training between 15 or 16 years of age, and they served for up to six years. If that was so, it is likely that he would have settled there about 1820 when he was about the age of 16.

In 1830, he moved to Hamilton at the head of Lake Ontario, a fine location for trading into the interior of Upper Canada. There he joined a new firm of tinsmiths owned by Edward Jackson who, having just started in 1830, was building up his business of manufacturing and selling tin ware in the newly settled farmlands of the Western District.<sup>5</sup> It is not known how long Piper stayed with Jackson, but it was long enough for the two men to develop a fast friendship. Hiram moved on, probably in 1832, and by the following year had opened Hiram Piper & Co, "Tin, Sheet Iron and Copper Ware Factory" at 30 Yonge Street in York.<sup>6</sup> The workshop of Isaac Collumbes, the store of Levi Fairbanks, the market location of the Helliwells and the home of Duncan Cameron were all within a half mile of Hiram's shop. The York Commercial Directory of 1833-34 shows the population of York as 7473, with outlying areas adding 700 people that brought the total to 8173. His brother Noah eventually joined him, but not in 1831 as some early histories claim. His birth records from Connecticut show that he was born in 1821. Hiram left Hamilton and arrived in York after 1831 when his brother was only 10 years old. Noah's name does not appear in the 1833/34 Directory. He had moved to Toronto before 1843 however, because he was listed in the City Directory for 1843-1844 as a tinsmith.<sup>7</sup> It wasn't until 1856 that we find a reference to the company as "H. Piper and Brother".<sup>8</sup> Both brothers married and raised families. Hiram had two daughters whereas Noah had three sons and a daughter. The boys were named Henry (Harry), Edward and the third was Hiram Lucas after his uncle. These boys would eventually move into the family business, Harry also taking the job of W & M inspector

<sup>3</sup> U.S. Census, State of Connecticut, 1820

<sup>4</sup> A directory for the Village of Buffalo, -- Heads of Families, on 1<sup>st</sup> of Jan. 1828, Publ. in Buffalo, NY, by L.P. Crary, 1928, p. 35

<sup>5</sup> Memorials of the Life of Edward Jackson, Published in Toronto by S. Rose, Methodist Book Room. Page 7

<sup>6</sup> York Commercial Directory, Street Guide and Register for 1833-4, compiled by George Walton, P.66

<sup>7</sup> Toronto Directory and Street Guide, 1843-4

<sup>8</sup> Brown's Toronto General Directory, 1856, P. 243

in 1880.<sup>9</sup> He was the owner of Toronto's first Zoo which was located on property that now houses the Royal York Hotel.

York was renamed Toronto in 1834 and by 1836 the ownership of the Home District Standards was being questioned. After much discussion it was decided that they would stay with the District.<sup>10</sup> The city was to purchase their own Inspection measures.

After some controversy, Piper was appointed to the job of Toronto City Measures Inspector for 1836 and again in 1838.<sup>11</sup> Entries in the Provincial accounts for 1840 show-, "Paid Hiram Piper, District Inspector, for stamps 1 pound 10 Shillings" and "Hiram Piper, services as Deputy inspector of Weights and Measures, 1 pound 5 shillings" confirming that he had changed jobs and worked for the province at that time.<sup>12</sup> He was listed in Brown's City Directories as the inspector for Toronto from 1850 to 1856. His shop was then located at 50 Yonge Street.

Noah worked at Hiram's shop in 1850-51 and their partnership began just after that date. The brothers promoted their expertise at the many agricultural and Provincial Exhibitions around the Districts. In 1854 they were awarded a prize for railway lamps,<sup>13</sup> the beginning of an enterprise that expanded into a continent-wide business of manufacturing railroad signal lamps under the

name of "H. L. Piper" in the late 1800's. This was built into a very large business by Hiram's namesake nephew, Hiram Lucas Piper.

Two prizes were awarded to the brothers at a Provincial Exhibition at Kingston in 1863 where they won for a set of weights and measures and for a Signal lamp for vessels.<sup>14</sup>

It appears that the Home District officials paid little attention to the affairs of the Weights and Measures officials during the years from 1826 until the 1850s. The same lack of attention applied to the town market. Somehow, the inspectors misplaced or lost the 1826 District inspector's standards. Few records were kept, the Market Clerk was not aware of the location of the market standards and, as we shall see, Piper was not forthcoming about the ownership of some standard measures in his custody.

All of this was revealed when in 1859, a new mayor, Adam Wilson, was elected in Toronto. He was interested in getting the city's affairs in order and soon discovered that the city's weights and measures were in disarray. The City should have applied for standards for the City but there is no record of that having occurred. The Market had been supplied with weights and measures, but at this time there were only nine

small weights remaining and no measures of any size were to be found. Wilson did a thorough investigation and presented a detailed report to the city council.<sup>15</sup>

Hiram Piper had been the city's inspector since 1850 and when questioned he stated that he had a set of weights and measures which he said he "procured for the city, but they have been



*Restored Piper Building- 83 Yonge Street*

<sup>9</sup> Ibid, P. 188

<sup>10</sup> Ibid

<sup>11</sup> Toronto Archives, Journal of the Common Council of the City of Toronto—1837, Item # 366

<sup>12</sup> Province of Canada, Journals of Legislative Assembly, Session 1842 (No. 6 – Home District)

<sup>13</sup> The Canadian Agriculturalist, Vol. 6, no 11 (Nov. 1854), Page 341, Canadian Agriculture Library, Ottawa

<sup>14</sup> The Canadian Agriculturalist, Transactions of the Board of Agriculture, Prizes Awarded at Prov. Exhibition in Kingston, Sept. 1863, Page 442

<sup>15</sup> Minutes of the City Council, Toronto, 1859, Appendix No.1, P. 263



lying with me ever since, unclaimed by the city, unused and not paid for."<sup>16</sup> It is impossible to say without more information, but Hiram's story is somewhat suspect.

York had become the City of Toronto in 1834 and the new council had petitioned the Home District to allow them to use the District's Weights and Measures. They reasoned that in 1826 they were meant to be used principally in the Town of York. The District agreed to share them.

Mayor Wilson knew that a set had been procured for the Home District but did not know the circumstances or the agreement of 1834. The mayor confirmed that Piper had been inspector for the Home District from 1838 until the act of 1849 when the job was given to Inspectors of Licenses. Piper however had applied to be Inspector of Weights and Measures for the City of Toronto and in August of 1849 was appointed to that job. "Mr. Piper--- applied to adjust a copy of standard weights and measures for the use of the city: and a set, as he declares, was accordingly adjusted and stamped, which hitherto has remained in his possession, but is yet, in fact, the property and for the benefit of the city."<sup>17</sup> This statement is corroborated by P. O. Chaveau, the Provincial Secretary in Quebec City in his letter of February 22nd, 1854 to Mr. Ryerse of Norfolk County. Note this from his letter. "I should add that Mr. Piper has in his possession a set of Standard Weights and Measures."<sup>18</sup> (See letter below)

A discussion of the market followed, the conclusion being that there no set was given to the market clerk in 1834 when the city was formed. The discussion did not come to any conclusion about the measures other than the reiteration that the measures that Piper holds should belong to the city upon a payment to Piper. This episode leads one to wonder about Piper's honesty in the matter since the measures of 1826 had been paid for by the Home District. In fairness to Piper, there is a possibility that he had ordered and paid for official measures from one of the London makers.

The fact that he had been repeatedly appointed to the inspector's position for many years showed his high standing in the community. That good opinion was due to his many public service activities. In 1837, the name Hiram Piper appears as a sergeant on the roll of the Queen's Light Dragoons, a company who fought to put down the rebellion in that year. That helped him to become a respected citizen of Little York. He organized a fire company in 1843 and served as its captain for many years.<sup>19</sup> He became a Freemason in 1846,<sup>20</sup> joined various other lodges and was a committee member of the Mechanic's Institute in 1856 and 1859.<sup>21</sup>

Under the circumstances, it would be impossible for me, - at least without putting the County to very great and unnecessary expences to supply from this place the Standard Weights and Measures which they require, I would suggest therefore that they should apply to Mr. Hiram Piper, Townsmith, of Toronto (who, for many years, has been employed by the Government to make such articles) to prepare the Standard Weights and Measures, they are in want of.

I should add that Mr. Piper has in his possession a set of Standard Weights and Measures.

Portion of letter from Mr. Chaveau 1854

<sup>16</sup> Ibid

<sup>17</sup> Ibid.

<sup>18</sup> Norfolk County Council Papers, Vol. 1-3, page 104, 1859 - 7 (See Ch. 12, note 1)

<sup>19</sup> Brown's City and Home District Directory - 1846-47

<sup>20</sup> History of St. Andrews Lodge, Toronto

<sup>21</sup> Journal for Education for Upper Canada, Vol. 9-10, 1856

It is likely that his public endeavours helped him to hold on to the Weights and Measures position and assisted him in monopolizing the manufacture of most of the County and Market Inspector's Standards for almost twenty years. It is possible that Piper had some agreement or contract with the government, but no evidence from the archival records supports that. The only reference is from Mr. Chaveau, cited earlier, who suggested that the County of Norfolk "should apply to Mr. Hiram Piper, Tinsmith of Toronto, who for many years has been employed by the government to make such articles." (p.128) This evidence suggests that he kept the set of inspector's measures that were intended for the Home District. We can speculate that he had acquired them with the job of District Inspector. His claim that the Toronto standards he acquired in 1834 were not paid for is surely false. The magistrates or the Council at the time would have ensured that any items were paid for if Piper had issued a bill or invoice.

A letter to the editor of the Toronto Globe in 1869 appears to accuse Hiram of making measures while acting as the inspector of weights and measures, even though the City Council prohibited him from doing so in a "by-law passed in November of 1862". The fact that Hiram died in 1866, three years before the letter was published, and his nephew Harry became the W&M inspector about that time, suggests that the writer confused the names. However, the feelings expressed by the writer, a tinsmith himself, probably mirrors the frustrations felt by many others throughout the years.<sup>22</sup>

**WEIGHTS AND MEASURES.**  
 —  
*(To the Editor of the Globe.)*

SIR,—At a meeting of the City Council, held on the 22nd of March, the office and duties of Inspector of weights and measures were discussed, and, among other things, it was stated by the Council that the Inspector of weights and measures for the city of Toronto should not make scales, but not a word was said about making measures. A by-law was passed by the Council on the 17th of November, 1862, prohibiting the said Inspector from making or selling weights or measures, or having them manufactured for him by others; yet, notwithstanding all this, the said by-law has remained a dead letter up to the present time, as far as the Inspector is concerned.

It is true that the said Inspector of weights and measures had to make and subscribe an oath, that he would faithfully perform the duties of the said office; but notwithstanding all this, the said Inspector has, from the time of his appointment to the present time, been manufacturing and selling measures by the dozen, or by the single measure, as they were required, thus monopolizing nearly the whole business of the city, in the sale of measures, to himself; and as the stamp costs him nothing, he can sell measures stamped as cheap as other tinsmiths can sell them without the stamp.

Now, Mr. Editor, I think that a tinsmith should not be Inspector of weights and measures. There are more than twenty tinsmiths in Toronto, and it is not just or fair that one of them should be placed in a position that he can monopolize a certain branch of their business without any restriction.

In looking over the by-law, I see that there is no penalty attached for any violation of the law, so far as the by-law goes, and so the Inspector takes the advantage of this neglect.

Yours truly,  
 A TINSMITH.

<sup>22</sup> Toronto Globe, April 1, 1869

## Graduates of the Piper Shops

Hiram and his brother were very successful businessmen and their workers were chosen carefully. Many of them were talented enough to start their own businesses.

In 1867 William Cottrell advertised that he had been “foreman for the late Hiram Piper for several years”.<sup>23</sup> He started his own business in 1866. A varied collection of his measures made in the late 19th century is pictured in the photos below.



*E. Little Collection*



*Ed Haldorsen Collection*

**WM. COTTRELL,**  
For several years Foreman for the late Hiram Piper,  
**MANUFACTURER OF**



**TIN, COPPER AND SHEET IRON WARE,**  
NO. 28 KING STREET WEST,  
TORONTO, C. W.

Stencil Cutting and General Jobbing promptly attended to. Water  
Coolers and Filters combined. Ice Cream Freezers,  
Baths of every description.

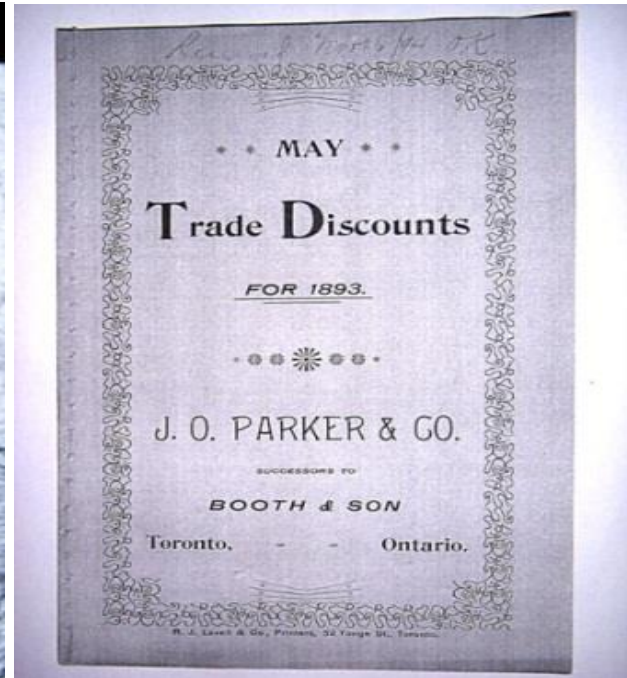
The Cottrell firm made these unique and rare measures shown above left, that had viewing windows so that the exact amount of liquid could be seen. They were intended for industries where more precise amounts were needed.

<sup>23</sup> Gazetteer and Directory for Kent, Lambton and Essex 1866-7, McEvoy & Co. Publishers, Printed by H. Rowsell, Toronto, Page 10

The Piper factory was a training ground for several other men who eventually began their own businesses in Toronto. Robert John Hill worked there for six years<sup>24</sup> and Ishmael Iredale<sup>25</sup> stayed with Piper for 23 years. Both men moved on to build successful businesses of their own.



George Sparrow & Co. circa 1910



John Parker & Co. 1893

John O. Parker handled some of Piper's billing and accounts, such as the receipt and letter to Woodstock in 1870. Parker went on to open his own successful metal working business.

George Sparrow worked for both the Pipers and the Booths. He handled much of Hiram's accounts and worked in the factory as well. His signature is also on the series of letters that were sent from Piper to the Woodstock Council.<sup>26</sup> There are several examples of measures in other Ontario collections that were made by Sparrow's firm, a company that he operated in the early 20<sup>th</sup> century.

## The Later Piper Company

The Piper brothers created prosperous businesses in Toronto and left a legacy of two fine buildings that are examples of 19th century architecture. Their store/factory at 83 Yonge Street is shown on page 129.<sup>27</sup> The other is Noah's Georgian-style house at 19 Bernard Street.<sup>28</sup>

Hiram died in 1866 and was buried in the Toronto Necropolis. It was not the end of the Piper name in Toronto however. Noah and his Sons continued to expand their businesses. Large and profitable products were the various lamps they began to make for homes, boats and railroads. They expanded this product line and established a company that was called Noah Piper and Sons and was located on Front Street in Toronto.

<sup>24</sup> Hill, History of Toronto and County of York, Publ. 1885, p. 67

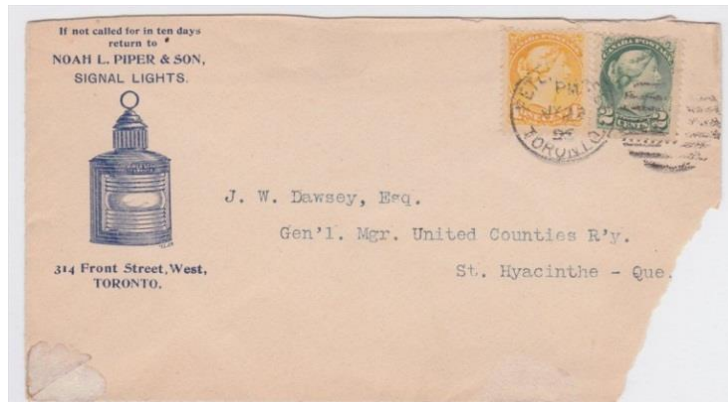
<sup>25</sup> Ibid p. 67

<sup>26</sup> See Oxford Page 89 in this study

<sup>27</sup> Toronto Heritage Properties Inventory, 83 Yonge Street, Commercial 28 527-78

<sup>28</sup> East Annex Heritage Conservation District Study, City of Toronto Heritage Property Inventory. P. 139

After Noah's death, his son (named Hiram Lucas after his uncle), took the company into the more profitable railroad signal lantern business. It became a continent-wide enterprise and although it started in Toronto, the head office moved to Montreal around 1900 and was named "H.L. Piper Montreal". For much of the twentieth century the company was the largest manufacturer of railroad signal lanterns in North America.



*Some Products of the Later Piper Company*

## Alexander McBride – London

In early 2014 the discovery of an old quart measure marked "County of Elgin – Winch." led to the identification of another maker in London, Canada West. (See P. 115) This Winchester quart from Elgin County had the name "McBride" stamped on the side. Records found in the Elgin County Archives showed that in an 1851 London Directory<sup>29</sup>, Alexander McBride was listed as a manufacturer of tin, copper and sheet iron ware. Letters from 1858 confirmed that McBride and his brother Samuel were the makers of the Elgin County weights and measures having travelled to the Provincial Secretary's office in Toronto to take accurate measurements to ensure that their manufacture of the local measures were accurate. They had supplied the County of Middlesex and the City of London with their weights and measures equipment at some time in the preceding year.<sup>30</sup> Unfortunately there has been no discovery of any examples of those measures in any museums or other collections.

<sup>29</sup> Canada Directory, London 1851, Access Genealogy, Internet site

<sup>30</sup> Archives, County of Elgin, Correspondence and Documents Filed by the Elgin County Clerk, Room 107, Box 2, File 2, # 31, 32

## Booth and Sons

It is possible that this company might have supplied some of the later county measures. The set made for Stratford is similar in manufacture to the Piper measures but differs markedly in the fonts used to mark the name and capacity. This might indicate that a different firm was responsible for making them. The initials S.M. indicate that they are Standard Measures.



*Different Letter Style of the Stratford Measures*



*These St. Catharines Measures Have Stamped Inscriptions that Match Known Piper Pieces*

Henry Gough Booth apprenticed in a coppersmith's shop in a small town called Cranbrook in Kent, England. He then worked for several years for a major London firm before sailing for America in 1844. He went first to Pittsburgh, then Cincinnati but eventually settled in Buffalo New York where his young family attended school. When his two sons were old enough they learned their father's trade and in 1853, moved with him to St. Catharines, Ontario. There he set up his own business with his sons.<sup>31</sup> By 1855 he had moved to Toronto and was listed in a business directory as H.G. Booth and Sons Coppersmiths, at 181 Yonge Street.

By 1877 the Company had achieved great success and was lauded as "the largest of its kind in the Dominion of Canada" in **Illustrated Toronto**, a late 19<sup>th</sup> century book that described the commerce of the city and its biggest industries.

Henry Booth and Sons attempted to compete with the Pipers. Their one success in supplying measures to the Upper Canada government appears to have been in 1877 when brass measures called haystacks were purchased by the Department of Weights and Measures. The name "haystack" originated because their shape had a similar appearance to the distinctive cone-shaped stacks of hay in the English fields. The Imperial gallon pictured here is one of two examples marked with the Booth name that are presently on display in the Measurement Canada offices in Ottawa.

The two pages reproduced below verify that the Booth firm was successful in supplying several measures to the



<sup>31</sup> The Cranbrook Booth Family of America publ. by Cranbrook Foundation, Bloomfield Hills Michigan, p. 7

government. One order, presumably for the haystacks, was for "Imperial Measures" for \$86.50. The second was for "Copper measures etc." for \$302.50.<sup>32</sup> No information has been discovered that would explain why those items were acquired. It is possible that Booth was asked to supply these as examples of the firm's work.

40 Victoria. Sessional Papers (No. 4.) A. 1877  
 APPENDIX B.—No. 9.—Details of Weights and Measures Expenditure.—  
 Continued.

To whom Paid.	Service.	Amount Paid.	Total.
<i>Equipment.—Continued.</i>			
		\$ cts.	\$ cts.
Fleck, A.	1,525 fifty-pound Weights	2,244 81	
Ottawa Standard	Advertising Tenders	11 10	
Canadian Express Co.	Freight on Standards	25 14	
Taylor, D.	Carriage	31 78	
The New Dominion	Advertising Tenders	16 20	
LeMoine, J. M.	Ocean Freight, &c.	98 91	
Romain, C. E.	Express Charges and studies	17 90	
St. Lawrence & Ottawa Railway	Freight	1,304 67	
The Hamilton Times	Advertising Tenders	9 00	
Le National	do	14 10	
Courier d'Outaouais	do	11 10	
Ben Public	do	19 60	
Courrier de Montreal	do	6 50	
The Montreal Herald	do	10 20	
Quebec Mercury	do	16 00	
Booth & Son	Copper Measures, &c.	302 50	
Allans, Rae & Co.	Freight	85 33	
Potter, C.	Four Glass Tubes	6 00	
Dyke & Kerr	Repairs, &c.	131 22	
Wright, A. F.	Work in connection with Standards	511 85	
Collings, T. F.	Engraving	48 67	
Serrano, J.	Brass Cock, Quadrant, Hose, &c.	71 80	
Chisholm, H. W.	Expenses for verification of Standards	1,192 33	
Toronto National	Advertising Tenders	6 00	
Somersville, W. M.	Slate Slab	204 90	
Reynolds, D.	Freight	52 60	
Galloway & Co.	Water Motor	50 00	
Aikin, N.	Fitting up Gas Apparatus, Freight, &c.	328 91	
Willingaby, J. B.	Tables for Standards	22 00	
Portland, G. B.	Lithographing	340 25	
Asst. Thomas	Painting Standards	18 00	
Ray, George	Spring Balances	4 26	
Falconer, A.	Freight	181 40	
Cameron, J. & Co.	Advertising	20 00	
Dixon, W. R.	For services rendered	513 30	
Dixon, W. R.	For sundry petty expenses on account of Standards	630 23	
The Nation	Advertising Tenders	4 00	
	<b>Total Equipment</b>	<b>40,710 14</b>	
	Also—Printing Stationary	3,656 50	
	Due by H. W. Chisholm, 30th June, 1876	485 67	<b>4,142 54</b>
	Less—Due by Sundry Persons, 1st July, 1875	1,216 67	<b>29,216 24</b>
	Due to do 30th June, 1876	633 33	<b>3,150 00</b>
	Actual Disbursements agreeing with Statement 21,		

40 Victoria. Sessional Papers (No. 4.) A. 1877  
 APPENDIX B.—No. 1.—Details of Excise Expenditure, 1876 '76.—Continued.

To whom Paid.	Service.	Delivered for Superintendence	Amount Paid.	Total for each Division.
<i>District Inspectors.—Continued.</i>				
		\$ cts.	\$ cts.	\$ cts.
<i>New Brunswick.</i>				
Hanford, T.	Salary as District Inspector	36 00	1,784 00	
	Contingencies		364 23	<b>2,128 23</b>
<i>Quebec.</i>				
Gouin, W. F.	Salary as District Inspector	60 04	1,969 96	
	Contingencies		506 62	<b>2,506 58</b>
<i>British Columbia.</i>				
Dupont, C. T.	Salary as District Inspector	44 08	2,155 95	
	Contingencies		139 00	<b>2,294 95</b>
<i>Prince Edward Island.</i>				
McDonald, J. A.	Salary as District Inspector	34 00	1,176 00	
	Contingencies		304 70	<b>1,580 70</b>
<i>Chief Inspector.</i>				
Godeau, A.	Salary for the year	48 00	3,502 00	
	Contingencies		731 87	<b>4,233 87</b>
<i>Other Services.</i>				
David, J.	Travelling and incidental expenses as Inspector of Distilleries		721 09	
Brusel, A.	Travelling Expenses		100 00	
Miail, E.	do do		95 00	
Potter, C.	Pyrometers, Thermometers, &c.		143 50	
Canadian Express Co.	Expressage		33 50	
Booth & Son	Imperial Measures		86 50	
Barrett, J. K.	Supplying the place of J. E. Valin while latter was employed at Quebec		43 25	
Hair, J. B.	Supplying the place of J. E. Valin, while latter was employed at Quebec		94 53	
Hann, G.	One Diamond and Iron		4 26	
Quebec Budget	Advertising Compounding of Spirits		9 00	
Durie & Son	Books, &c for Exam. Examination		3 82	
Sorrow, John	Box for Clean Receiver Measure		31 81	
H. A. Bank Note Co.	Tobacco Stamp, Blank Books, &c		13,688 35	
Negretti & Cambra	Apparatus for testing the contraction of Spirits, Hydrometer and Test Jars		187 84	
Croft, Professor	Testing samples of Wood Naptha		15 00	
Marden, S. J.	Gear Wheels for Dating Stamps		50 00	
Walter, H. G.	Remuneration for services of his late father, Inspecting Petroleum		40 00	
Griffin, J. J. & Sons	Alcoholometers, Vaporimeter, etc.		86 85	
Goodman & Worts	Alcohol		37 22	
Millchamp, W.	Plating Spirit Tester Measure		30 00	

"Sessional Papers, Legislature of Ontario" Showing Measures Supplied to the Government

The Montreal Herald	do	6 50
Quebec Mercury	do	10 20
Booth & Son	Copper Measures, &c	302 50
Allans, Rae & Co.	Freight	85 33
Potter, C.	Four Glass Tubes	6 00

Enlargement of Appendix B -- No. 9

Canadian Express Co.	Expressage	33 50
Booth & Son	Imperial Measures	86 50
Barrett, J. K.	Supplying the place of J. E. Valin while latter was employed at Quebec	43 25

Enlargement of Appendix B -- No. 1

<sup>32</sup> Sessional Papers of the Legislature of Ontario, 1877

THE NEPHALIST, SATURDAY, OCTOBER

DEPOT OF THE  
**"CITY FOUNDRY,"**  
 TORONTO.  
**J. R. ARMSTRONG & CO., PROPRIETORS.**  
 Now Manufacturing at the above Foundry, especially for this  
 Market, and will shortly commence to arrive  
 AN IMMENSE ASSORTMENT OF  
**STOVES OF ALL KINDS.**

**SPECIAL ANNOUNCEMENT!**

THE Proprietors of the "City Foundry," believing that every skilled mechanic has a perfect right to a fair compensation for his labor; and also that he has rights and privileges which he is justified in protecting against the possible oppression of capital, have in almost every instance during the recent strikes of the Iron Moulders, deemed it only fair and proper to accede to their demands. Consequently, while every other Stove Foundry in Upper Canada has been denuded of men, they have been constantly manufacturing, without day's cessation, with picked men and the best material, all their superior patterns of Cooking and Heating Stoves. Great improvements have been made this season in all the Stoves; especially the Armstrong Stove, which made such a successful debut before the public last season.

Our Stoves can only be had in the Niagara District at the Depot  
 No. 20 St. Paul Street, St. Catharines, N. Y.

**H. BOOTH, Agent.**

St. Catharines, July 28, 1866.

The Nephalist, St. Catharines— October 13, 1866<sup>34</sup>

**COPPER WORK OF ALL KINDS** for Brewers, Distillers, Confectioners, &c., made to order, and a very large stock of Sheet Copper of all sizes always on hand by  
**BOOTH & SON, COPPERSMITHS,**  
 Richmond Street, (opposite the Wesleyan Church)  
 TORONTO Letters promptly attended to. 1-\*

Toronto Evening Standard - 1867<sup>33</sup>

**ESTABLISHMENT OF BOOTH AND SONS.**

This energetic firm have largely increased their facilities during the year. They now occupy the extensive premises situate on the corner of Yonge and Queen streets, and even here the growth of their trade necessitates a still greater enlargement. They employ from twenty-five to thirty men in the various departments as Copper Smiths and Sheet Metal Workers, with which they continue an increasing trade in hardware, stoves, coal oil, &c. They have made for themselves a reputation in the erection of copper stills and other work of a like description for brewers, distillers, and refiners. They have have fitted up a great number of establishments, as far east as Montreal, and west to the limits of the Province. Among others particularly noticeable, is the extensive distillery of Messrs. Gooderham & Worts, which will be described at length elsewhere. The class of goods known as Bright Copper Ware, comprising culinary utensils, receives especially attention at this establishment. The entire cooking apparatus of the Rossin House, Toronto, and the Tecumseth House, London, attest the character of the work done by this firm. In addition to this they carry on a large manufactory of tinware, with which they supply the country trade and pedlars. They are just now importing machinery from Birmingham for the manufacture of raised tin-work in the shape of table-covers, &c. There are only two manufacturers of this work one the continent, one at Philadelphia and another in New York. The establishment for manufacturing here will, we hope, reduce the price of a very useful class of goods.

These are a few of the specialties of the establishment. The proprietors are all practical men, and the business is conducted with an energy and success which does them credit.

The Firm of Booth and Sons - 1862<sup>35</sup>

<sup>33</sup> The Toronto Evening Standard, February 1867

<sup>34</sup> The Nephalist, St. Catharines, October 13, 1866

<sup>35</sup> The Globe, Toronto, February 7, 1862



The pint measure shown below is marked with the Booth name on the bottom. It closely resembles the county measures of 1826 to 1860 produced by Hiram Piper. It shows that the Booth firm was attempting to demonstrate their ability to produce measures for the newly formed counties and the new town markets in Canada East. We know that by the late 1850s Piper was the major manufacturer of those measures. However, the counties and markets in the outlying parts of the province tended to support local makers and get cheaper prices as well. The McBrides for example, made their products at a lower price and with higher quality than Piper. Also, their measures were heavier and less apt to be dented or otherwise damaged.



*Container of Pint Size, with no Capacity Marks  
Construction is similar to that of Hiram Piper*



*Bottom marked "Booth & Sons Maker Toronto"  
E. Little Collection*



*Another Example of Booth and Sons' Work.*



*Gill Measure - Fine Engraving*

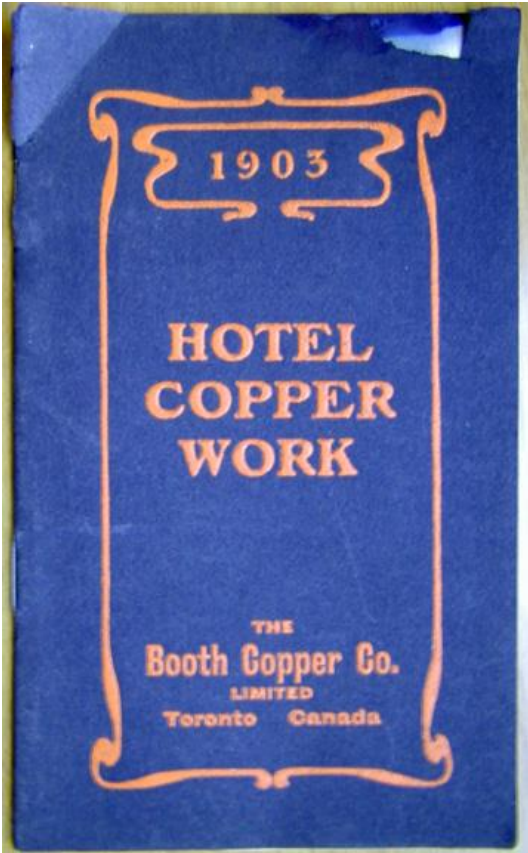
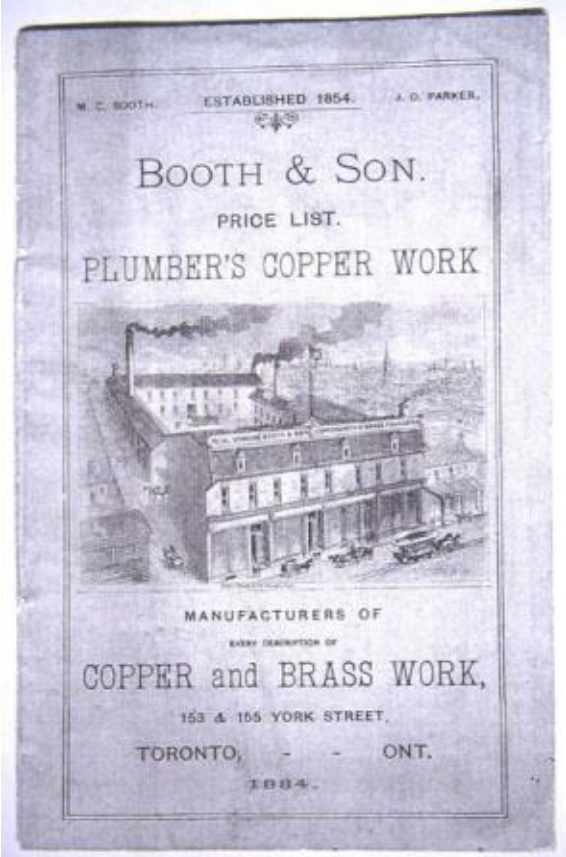


*E. Little Collection*

Henry's grandson George moved to Windsor, Ontario when he was 20 years old and started his own iron works business. It was a great success and he soon moved on to Detroit where he met and married the daughter of Henry Scripps the owner of the Detroit Evening News. George soon proved his business worth and was invited to join the newspaper as its business manager. He was a great manager and eventually took charge of the Company. He amassed a large fortune and bought farmland to the north of the city in Bloomfield Hills for a country estate. He built a home there and developed an interest in the arts. From these interests, an artistic and educational campus called the Cranbrook Institute was developed. The school for young people was somewhat avant garde and served the more affluent in that Detroit suburb. Mitt Romney, whose family lived nearby, was a graduate of the school.<sup>36</sup>

<sup>36</sup> Schools.cranbrook.edu. romney

The Booth company eventually joined with Coulter Copper and Brass, a firm started by another early employee of Booth . That new company became Coulter Copper and Brass and still survives today as Cemcorp, having been run by a third generation, Michael Coulter until his death in 2015.<sup>37</sup>



Two Booth Catalogs 1884 and 1903

<sup>37</sup> Cemcorp Ltd. 2170 Stanfield Rd., Mississauga Ont.

## CHAPTER SIXTEEN- *Canada's West Coast*

In the mid-19th century the western part of Canada was sparsely populated but was slowly being settled by Europeans. The southern tip of Vancouver Island had a fine harbor that was guarded by Fort Victoria. When the island became a Crown Colony in 1848, the town of Victoria was named as the capital.<sup>1</sup>

Much of the interior was controlled by the Hudson's Bay Company but by the middle of the century the Company was gradually closing its operations. In 1857 gold was found in the Thompson River Valley and the resulting rush of miners from mined-out California gold fields caused a sudden increase in the population. Since many of the miners were American, there was widespread sentiment that the U.S. should annex the area. An influx of British who bought large acreages of land caused opinions to change. At the same time Britain decided that the area was important to their trade with the nations of the Pacific, so in 1858 the Colony of British Columbia was formed with its capital at New Westminster. Strangely, the two Colonies merged into one in the following year, taking the name of "British Columbia."<sup>2</sup>

Both Colonies acquired full sets of weights and measures from makers in England. No examples of standards for the Colony of British Columbia are in any collections, but such standards must have existed because the local newspapers announced the appointment of Inspectors of Weights and Measures in 1867. Those inspectors would have needed copies of the standards to perform their duties. The Cariboo Sentinel wrote on May 20, 1867, that "J.A.R. Homer was made acting Inspector for the district of Victoria."<sup>3</sup> The same paper noted on May 27, 1867, that Thomas Westgarth was appointed to that position for New Westminster.<sup>4</sup>

A partial set for Vancouver Island, made by Potter of London and dated 1865, is in the Museum



*Vancouver Island Imperial Gallon – 1865* [Kilshaw's Auction](#)

of British Columbia in Victoria. Three from that set, a half bushel, bushel and peck are shown below. Recently a Victoria auction house sold a privately-owned gallon from the set for \$2200.<sup>5</sup>

The numeral 1376 is the "indenture number", the number in the records of the British Exchequer where the item was tested for accuracy

The two Colonies merged into one the following year, taking the name of the Province of British Columbia. The "Law to Establish a Standard of Weights and Measures" was passed by the new legislature on April 22, 1868.<sup>6</sup> The United Colony joined Confederation in 1871. The weights and measures were then administered from Ottawa.

<sup>1</sup> Wikipedia, History of British Columbia

<sup>2</sup> Barman, Jean, *The West Beyond the West*, p.72

<sup>3</sup> Historicalnewspapers.library.ubc.ca, - Cariboo Sentinel, May 20, 1867

<sup>4</sup> Ibid, May 27, 1867

<sup>5</sup> Kilshaw's Auctions, Fort Street, Victoria, Feb. 10, 2010, lot 156

<sup>6</sup> 31 Victoria No. 97, *The Laws of British Columbia*, Victoria B.C., Government Printing Office, 22<sup>nd</sup> April 1868

Official Dry Measures - Vancouver Island - 1865<sup>7</sup>



*Bushel*



*Peck*



*Half Bushel*

*Museum of British Columbia --Victoria*

<sup>7</sup> The Museum of British Columbia, Victoria B.C.

## Acknowledgments

Many thanks are due to Patricia Kennedy of the Library and Archives Canada who found the documents that helped to uncover the story of the 1826 Upper Canada measures from Mary De Grave! David Pantalony of the Canadian Museum of Science and Technology gave much encouragement and advice and provided many of the photos found in this study. Mary Gladwin of the Oxford County Archives was especially helpful. Thanks to Sarah Kaufman of the Niagara Historical Society Museum for posting this to the Internet. Mary Pitchford assisted with the editing and layout of the report. Fellow collectors John Slater, Harry Makepeace, Bill Yeager, Arthur Kool, Ed Haldorsen and Howard Cheifitz deserve much credit for their advice and help.

Further information and any comments should be directed to [ericlittle1@gmail.com](mailto:ericlittle1@gmail.com)

Eric Little  
ericlittle1@gmail.com  
Brantford, Ontario  
April 18, 2018

### About the author

Eric grew up on a farm near Monkton, Ontario in Perth County. He graduated from Waterloo Lutheran University (now Wilfred Laurier) and the University of Toronto. His interest in the collecting of early Canadian artifacts began in Canada's Centennial year.

He retired from teaching geography in various high schools in Scarborough, a suburb of Toronto. He then became involved in the business of buying and selling antiques, even shipping container loads of "nostalgia" to decorate pubs in England.

Old measures and weights held a special interest and led him to a search for information about their history. Very little has been written about the subject and so many hours were spent searching through old council minutes, local histories, as well as Provincial and National Archives.