

SLIDES

## Illusions of Grandeur Hamilton's Heritage of Victorian Architectural Sheet-Metalwork

Text for accompanying Powerpoint Presentation by Ann Gillespie at Graham Crawford's HISTory + HERitage Gallery in 2009 (operated from November 2013 to 2019 as *The Hamilton Store*, when the building was still owned by Graham Crawford). Revised and updated, June 2021.

NOTE: Image credits are provided on the accompanying PP presentation slides. Site photos taken by the author in 2009, unless otherwise indicated.

BACKGROUND: This presentation was based on research undertaken in the early 1980s for an M.A. thesis, Institute of Canadian Studies at Carleton University\*, completed under the supervision of Dr. Norman Ball, then employed by the Public Archives of Canada as a specialist in the history of technology and engineering. Dr. Ball had recently acquired a collection of trade catalogues of companies which manufactured sheet-metal building products, which became the inspiration for my thesis topic. My research covered the architectural applications of sheet metal in Canada between 1870 and 1930 and the technological advances in sheet-metalworking technology which took place during this time frame, broken down for study purposes into two phases: 1870–1890 and 1890–1930. My thesis focused on the earliest techniques of fabricating and erecting sheet-metal building components, which I refer to as the “tin-shop” method.

\* “Decorative Sheet-Metal Building Components in Canada, 1870–1890: Tin-Shop Methods of Fabrication and Erection” (Ottawa: Carleton University, April 1985)

2

Many of you have no doubt seen examples of the so-called “tin” ceiling. I prefer to use the term “pressed metal”, which describes how these ceilings were made rather than the specific type of sheet metal used. An excellent example is the one uncovered by David Kurec, when he was renovating the ground floor of the building at the corner of James and Cannon for his *Mixed Media* art supply store. Ceilings of this type represent only one of many architectural applications of sheet metal, which was a commonplace building material throughout North America in the late Victorian period, due to its relatively low cost, practicality and stylistic versatility.

3

Downtown Hamilton has a rich heritage of architectural sheet-metalwork, which includes many surviving pressed-metal ceilings as well as decorative cornices and window surrounds. The 1882 building in which Graham's gallery was located, for example, features decorative sheet-metal hoods over the upper storey windows.

To help you gain a better appreciation of this heritage, I will first provide some general background on the utilitarian and decorative uses of sheet metal in Victorian architecture and the various techniques of fabricating and erecting decorative sheet-metal components.

Secondly, I will describe the various types of businesses engaged in their

production during the period spanning the years from 1870 to 1930, focusing where applicable on Hamilton-based firms.

Finally, I will show you a variety of exterior and interior examples of the application of such components on the outside and inside of a number of commercial buildings in downtown Hamilton.

## **PART 1: General Background**

### **Sheet-Metal Building Components**

Certain types of sheet metal had been used in construction on a very limited scale for centuries, but it did not become an important building material until the 19<sup>th</sup> century. The types used in Victorian buildings were sheet copper, which was the most expensive, sheet zinc, tinsplate, and sheet iron or steel. Initially, sheet metal was used strictly for such utilitarian components as flat or corrugated roofing sheets, roof shingles, flashings, downspouts and gutters.

A particularly utilitarian form of sheet metal introduced in the Victorian period was corrugated galvanized iron: corrugated sheet iron coated with zinc to prevent rusting. Its cheapness, strength, durability, lightness in weight, and fire resistance led to its widespread application throughout the British Empire and America as a roofing and siding material for such buildings as warehouses, mills, and train sheds, as illustrated by this example from an 1854 catalogue of the *Marshall, Lefferts and Brother* in New York, described as “adapted to Railroad Depots, and manufacturing establishments, where a fire-proof and durable roof is so essential.”

Sheet metal was, however, not just an extremely practical material. As North American builders and manufacturers were quick to recognize, it also had great potential as an architectural material, one which could satisfy the Victorian taste for ornate, exuberant forms. This is well demonstrated by the classically inspired Sheet Metal Pavilion erected at the 1876 Centennial Exhibition in Philadelphia by the *Kittredge, Cornice and Ornament Company* of Salem, Ohio, an exhibition show-piece, which was ridiculed at the time by architectural critics, both for its profuse ornamentation and its imitative character. Nevertheless, the material which it promoted – sheet metal – was already very popular with American architects and builders, and rapidly gained acceptance in Canada. By the early 1880s, architectural elements made of sheet metal were becoming so common that the prominent Winnipeg architect, William Harris, remarked disapprovingly that “this rickety galvanized-iron construction is becoming a regular feature of our street architecture, and on some buildings we have it by the quarter section”.

### **The Architectural Use of Sheet Metal in Canada, 1870–1930**

From the 1870s through the 1920s, sheet metal was used in Canada for a variety of decorative three-dimensional exterior components, largely fabricated by traditional tinsmithing techniques. From the 1890s on, it was also machine-stamped to create embossed ceiling and wall panels and linear border

4

5

|                   |  |
|-------------------|--|
| <p>6</p> <p>7</p> | <p>components, as illustrated by this page from a 1916 catalogue of the <i>Metallic Roofing Company of Canada</i> in Toronto. These standardized components were produced in quantity and generally made available through manufacturers' trade catalogues, from which they could be ordered by stock number. Highly ornate store fronts assembled from pediments, cornices, stamped frieze panels, columns and rock-faced siding were also offered by one Canadian company, <i>The Pedlar People</i>. The Pedlar "Modern Building Fronts" were intended to showcase the full spectrum of exterior siding and ornamental elements that could be made of sheet metal. Shunned by contemporary architects as the epitome of vulgar taste, the catalogue illustrations would nevertheless have had a strong appeal to public taste by offering maximum ornamentation for a minimal cost. However, complete sheet-metal storefronts did not become commonplace in Canadian towns and cities where commercial buildings were predominantly built of brick or stone masonry.</p> <p>Decorative sheet-metal components became popular throughout North America for both practical and stylistic reasons. From a practical standpoint, they were inexpensive, durable, lightweight, and fire-resistant. From an aesthetic standpoint, they appealed to the Victorian taste for profuse ornamentation. Moreover, they could be made to imitate more expensive construction materials like stone, as illustrated by the Pedlar siding on this example of a Modern Building Front, fabricated of galvanized sheet steel. Such components were used on many different types of buildings, both architect-designed and vernacular, and were a particularly common feature of commercial blocks. Their use declined steadily from the 1920s, however, with advances in fire-proofing methods and the demise of the Victorian taste for applied ornamentation in interior design and architecture.</p> <p><b>PART 2: Canadian Businesses Engaged in Architectural Sheet-Metalwork</b></p> <p>Prior to 1890, decorative sheet-metal building components made in Canada were all supplied by small diversified businesses engaged in tinsmithing. After 1890, they were also supplied by large companies which specialized in the manufacture and mail-order marketing of sheet-metal building products.</p> <p>As coined for my thesis, the manufacturing facilities associated respectively with the small enterprise and the large company are referred to as the <i>tin shop</i> (short for tinsmith's shop) and the <i>stamping plant</i>. The early period from 1870 to 1890 was characterized by the small enterprise and the <i>tin-shop</i> method of fabricating and erecting sheet-metal components. The later period, from 1890 to 1930, was characterized by the large company and by mass-production, prefabrication, and mail-order marketing. Nevertheless, the two technological phases overlapped during the latter period and the small enterprises continued to play an important role in supplying custom-made components, regardless of the proximity of a large company.</p> |
|-------------------|--|

### Hamilton's Small Enterprises

Decorative sheet-metal components were first fabricated by small diversified businesses which typically combined the manufacture of tin, sheet-iron and copper ware and the sale of stoves and hardware, with such building work as roofing, plumbing and gas-fitting. One such business was the Hamilton Galvanized Iron Works of *Thos. Irwin & Son*, which by the 1870s was offering decorative cornices and window caps, in addition to the products and services just described, which included iron, tin and gravel roofing. Small enterprises like this catered to local customers, advertised in local newspapers and city or county directories, conducted business on a person-to-person basis, and both fabricated and erected sheet-metalwork under a contract arrangement.

#### Miller's Tin Shop

8

When I was doing the research for my M.A. thesis in the early 1980s, I visited the last remaining traditional tinsmithing establishment in Hamilton: *Miller's Tin Shop* on Wentworth Street North (no longer in business). At that time, Miller's work consisted mainly of custom-made furnace fittings, stove pipe elbows, conductor pipe and eavestroughing, lengths of which were propped up against the storefront. To my great surprise, it was still in business in 2009, but was by then run by his son Pat, who sold hard-to-find pipe for old wood stoves, and small sheet-metal jobs. This was a very small-scale operation, but there was a considerably larger local sheet-metalworking firm in Hamilton, which started out as a similar tin shop.

#### John E. Riddell

9

The largest and longest surviving Hamilton business engaged in roofing and sheet-metalwork was established in 1877 by John E. Riddell in a building at 257 King Street East and was known by the same name. The top corner of the front cover of this 1970s brochure depicts roofers working on the top of its own building. The firm grew into a sizable operation, which employed from 30 to 50 men by the early 1900s. In 1910, the business relocated to a three-storey building at 12–14 Ferguson Avenue North. The description published in the *Magazine of Industry* in December of that year indicates that by then *John E. Riddell* supplied roofing in a wide range of materials including copper, galvanized iron, plus sheet-metal cornices and ceilings, metal skylights and fire doors. Contracts for architectural sheet-metalwork included such landmark buildings as the Stanley Mills Department Store, the Grand Opera House and Thomas Watkin's Right House.

The firm was eventually taken over by his son, John, and continued to survive and expand as a result of astute management and the ability to continually adapt to changing market conditions. In 1961, the business was sold to senior employees Lloyd Hacon and Ed Graham, but John Riddell continued to work part-time into his eighties. In 1973, the firm moved to a new factory at 389 Kenora Avenue, shown on the back cover of the brochure, and was by then incorporated as *Riddell Sheet Metal & Roofing Ltd.* A *Hamilton Spectator* article announcing the

move indicates that the company employed 60 to 70 workers at peak times and had been awarded contracts to do the roofing for Hamilton City Hall, Hamilton Place and a number of shopping malls, including Jackson Square. Its product line also included industrial and commercial sheet-metalwork, such as ductwork, chimney stacks, and anti-air-pollution “scrubbers” for use in the sugar cane industry in Florida and the pulp and paper industry. The company closed permanently around 2004, the last year in which it had a listing in the *Yellow Pages*.

When I was doing my thesis research, I contacted the firm and was able to visit the plant and talk to Mr. Hacon, who provided valuable background on the history of the firm and earlier architectural sheet-metal work fabricated and erected for important Hamilton buildings. He showed me some of the types of machines and tools that would have been used in the fabrication of cornices and other decorative building components from the 1870s through the 1920s, which were still in use.

### **The Tin-shop Method of Fabricating and Erecting Sheet-Metal Building Components**

The tin-shop method of fabricating and erecting exterior building components was labour-intensive and skill-demanding work. The procedure involved in fabricating the parts, and assembling and erecting them, all required traditional tinsmithing skills.

To gain a basic understanding of the tin-shop method, we can look at the steps involved in fabricating and erecting a cornice, the most common but also the largest and most complex of the individual architectural elements made of sheet metal. This fairly simple galvanized-iron cornice consists of a crown moulding, end brackets and frieze embellished with modillions and a dentil course. The sheet metal was cut, bent and joined to create three-dimensional forms which look solid from the outside.

The fabrication of a cornice began in the tin shop, where the various parts were drafted and laid out, the sheet metal cut and formed, and some of the parts joined. This traveling tin-shop display set up by a retired sheet-metalworker from London, Ontario in the 1960s, included all the basic hand tools and manually-operated machines used for architectural sheet-metalwork by any small enterprise.

The first step in making a cornice was to create the patterns needed to cut out the many different sizes and shapes of sheet metal required for each component part. Cutting was done by hand with hand shears, commonly known as “tin snips”. Straight edges were generally cut by foot-operated “squaring shears”, designed to make right angle cuts. This model was manufactured in Hamilton by *Brown, Boggs & Co.*, a machine and tool manufacturer established in 1890. It is worth noting that in 1892 Brown-Boggs bought out the first Canadian manufacturer of tinsmiths’ tools and machines, established in Hamilton in 1867

10

11

12

|    |   |
|----|---|
| 13 | <p>under the name Samuel S. Moore.</p> <p>Sheet metal was formed primarily by bending techniques; it was bent by hand over stakes of various shapes and sizes or it was bent mechanically in a cornice brake, an essential machine for cornice work, which was used for bending and folding sheets of heavier gauge metal up to 8 or 10 feet in length and forming complex moulding profiles. This example, a “Four Leaf Cornice Brake” was patented by Brown-Boggs around 1890 and immediately gained the approval of cornice makers throughout Ontario.</p>   |
| 14 | <p>The various parts of the cornice were then joined by a combination of seaming, riveting and soldering techniques. Some of this joinery was done in the shop; the rest was done on the building site. Finally, the cornice was attached to the wall of the building by means of a wood or metal support known as a “lookout”.</p>   |
| 15 | <p><b>The Large Companies Engaged in the Production of Sheet-Metal Building Components</b></p> <p>The tin-shop method just described was employed by small enterprises throughout the 1870–1890 period, and to a lesser extent by the large companies established after 1890. The latter, however, concentrated on quantity production rather than custom fabrication; and hence, on the manufacture of standardized elements formed by machine-stamping techniques to produce a variety of <i>pressed-metal</i> components, which included embossed cladding materials for exterior walls and interior ceilings and walls, as well as stamped shingles and ornaments. This catalogue page illustrates a sampling of the zinc ornaments manufactured by the <i>Metallic Roofing Company of Canada</i>.</p>  |
| 16 | <p>This firm, established in Toronto in 1884, was the first large Canadian company to specialize in sheet-metal building materials. Its earliest and only competitor prior to the mid-1890s was the <i>Pedlar Metal Roofing Company</i>, established in Oshawa in 1892. By the early 1900s, <i>The Pedlar People</i>, as the company was by then known, were already claiming to have “the largest plant in the world for the exclusive production of sheet-metal building materials”, and by this time had offices and warehouses across the country. This rendering appeared on the frontispiece of the Pedlar 1902 catalogue, their first comprehensive catalogue offering a complete line of sheet-metal building materials, ranging from utilitarian corrugated-iron roofing and siding to ornate ceilings, cornices, window hoods, as well as imitation brick and stone siding. The company also offered complete building facades which combined siding, cornices, pediments, and other decorative elements, illustrated by the “Modern Building Front” (slide 7).</p> |
| 17 | <p>By 1905, the five major Canadian manufacturers of sheet-metal building materials had been established. These included the <i>Winnipeg Ceiling and Roofing Co.</i> and two more Ontario firms: the <i>Metal Shingle and Siding Co.</i> in Preston and the <i>Galt Art Metal Company</i> in Galt (both former towns now part of the City of Cambridge). This photo shows the latter company’s first building and water tower surrounded by agricultural land but situated by the railway, initially the</p>  |
| 18 |   |

|    |   |
|----|---|
| 19 | <p>only means of long distance freight transportation. Two of their ceiling tile designs are shown in this advertisement. No comparably large company was ever established in Hamilton. John E. Riddell was not engaged in the mass-production of <i>pressed-metal</i> building components, such as ornaments for cornice work or ceilings, which were ordered from one of the Ontario-based large companies.</p>   |
| 20 | <p><b>The Stamping Plant Method of Fabrication</b></p> <p>This building is the plant and office of the historic of the <i>W.F. Norman Manufacturing Co.</i>, established in Nevada, Missouri in 1898, and once again engaged in the production of decorative sheet-metal components under the name <i>W.F. Norman Corporation</i>. This interior view shows part of the office area with its elaborate pressed-metal ceiling. The W.F. Norman website now includes an excellent YouTube video describing the history of the company, its product line and its future: <a href="https://wfnorman.com">https://wfnorman.com</a>.</p>  |
| 21 | <p>The main manufacturing facility of the large company was the stamping plant, illustrated by this interior view of the factory. In the stamping plant, skilled hand work was replaced by machine work and manually-operated machines by power-driven ones. Pressed-metal components were entirely made in the stamping plant. Aside from the preliminary work of setting up the machinery, the fabrication of these components involved only two distinct operations: cutting and forming. The sheet metal was first cut into standard-sized squares, strips or panels using power shears. These pieces were then stamped with an embossed pattern in a mechanical press or drop hammer, as illustrated by one re-activated by the W.F. Norman Corporation. Drop stamping was the earlier, and in Canada, by far the most common technique.</p> <p>In a drop hammer, the sheet metal is formed between two dies by the force of one or more blows of a heavy weight, which is raised and dropped by means of a powered rope pulley system. The bottom (or female) die is stationary, while the top (or male) die is movable. Every company fabricated its own dies using patterns made from a registered design or one of many popular designs offered by more than one manufacturer.</p> <p>W. F. Norman claims on its website to use original machinery and production methods, with panels being made one at a time on antique rope drop hammers, resulting in better quality control than modern hydraulic presses.</p> |
| 22 | <p>This is an example of a hydraulic press, used by <i>Shanker Industries</i> in Deer Park, N.Y. to produce a variety of pressed-metal components for interior applications. The claim is made on its website that the company is the “oldest and largest manufacturer of authentic decorative metal walls and ceilings in the country” and “since 1896 we are the ONLY manufacturer using sand cased steel dies from original wood carving to create all of our designs”:<br/> <a href="http://www.shanko.com/About_Us.html">www.shanko.com/About_Us.html</a>.</p>   |

|                                      |  |
|--------------------------------------|--|
| <p>23</p> <p>24</p> <p>25 and 26</p> | <p>The first mass-produced ceiling components were manufactured by an American company in 1888 and by the Metallic Roofing Company in Toronto only two years later (see slide 6). As stated at the beginning, the typical <i>pressed-metal</i> ceiling is more commonly known as a <i>tin</i> ceiling. Historically, metal ceilings may have originally, or in some parts of the world, been fabricated of tinplate but the catalogues of the five major Canadian companies indicate that their ceiling components were all made of sheet steel primed in the factory. In the case of the Metallic Roofing Co. they were primed with one coat of “Pure White Zinc Paint”. The first Pedlar ceiling components, according to the company’s 1896 catalogue of <i>Art Metal Interior Decorations</i>, were coated with “paint of pure white lead mixed with linseed oil and turpentine.” An entire ceiling was assembled from a number of different components, including square ceiling plates, and various linear components, such as borders, mouldings, and coves, which were generally supplied in 4-foot lengths. The standard size for ceiling plates was 2 feet square but larger panels with simpler patterns measuring 2 X 4 feet or larger were also made for covering ceilings and walls. Metal ceilings were sold as catalogue-ordered components that could be mixed and matched to create a unique overall design.</p> <p>To order a metal ceiling from a manufacturer’s catalogue, one simply identified the individual components by number or code and made a sketch of the ceiling to be covered, showing its exact size and shape. The standard catalogue-ordered ceiling, complete with a layout plan showing the arrangement of the various components was supplied as a carpenter’s kit, which required only basic layout and carpentry two tools: a hammer and tin snips. Installing a metal ceiling did not require any of the tinsmithing skills associated with cornice work as none of the individual components needed to be joined by seaming, riveting or soldering techniques.</p> <p>The existing ceiling was first prepared with a backing of wood sheathing or furring strips. The ceiling tiles were formed with beaded edges so that they could be lapped and nailed to the wood backing. These tiles were put up first; once the centrefield was in position, the border elements were then installed, and finally, the ceiling was given a finish coat of paint.</p> |
|--------------------------------------|--|

## **PART 3: Architectural Sheet-Metalwork in Downtown Hamilton**

### **Early Period (1870–1890)**

This overview of Victorian architectural sheet-metalwork in Hamilton will begin with the early period, which approximately spanned the years from 1870 to 1890. During these two decades, the decorative use of sheet metal was restricted to exterior components, such as cornices and window caps or surrounds, of which many good examples survive in Hamilton. We will look at three buildings in downtown Hamilton from this era.

#### 54–60 James Street North

The earliest example yet documented is this commercial block at the south-east corner of James Street North and Rebecca Street, erected in 1873 for Joseph Lister. The windows on the two street facades of this otherwise quite plain brick building are embellished with sculptural hoods designed in a Renaissance Revival style and fabricated of galvanized iron by means of the tin-shop method previously described. The scrolled leaf ornaments suspended from the end brackets were likely made of sheet zinc, which was more pliable and could be hammered by hand over a carved wooden form. This manual technique was used before machine-stamped zinc ornaments became readily available. Missing is the original cornice of the section from 56–60 James Street North, assumed to have been identical to the one on #54.

#### Treble Hall, 6–12 John Street North

Over on John Street North, close to Gore Park, is one of Hamilton's finest examples of a Renaissance Revival commercial block, known as Treble Hall. Designed by the noted Hamilton architect, James Balfour, and erected in 1879 for Henry J. Larkin, this distinguished commercial block features a prominent cornice and sculptural window surrounds, all made of galvanized iron but with a deceptive appearance. Early architectural sheet-metalwork was typically shaped and finished to resemble cut and carved stone and when viewed from a distance was virtually indistinguishable from solid masonry, at least to the untrained eye. However, such decorative sheet-metal components were denigrated by architectural critics of the time as "hollow shams". Tell-tale signs of sheet-metal construction are peeling paint, which exposes the metal surface, rusting of unprotected metal, dents and splitting of the joints. Another clue is that sheet-metal cornices, pediments, etc. were much lighter in weight than stone or wood ones due to their hollow construction and could therefore be formed into more robust shapes than solid materials, such as stone, wood or cast iron. The forms of sheet-metal and cast-iron architectural elements may be compared on Treble Hall, as its storefronts are fabricated of cast iron. In contrast to the galvanized iron-work, the Corinthian columns and pilasters have a structural function.

27 and 28

29

30

### Victoria Hall, 68 King Street East

31 and 32

The outstanding example of exterior architectural sheet-metalwork in Hamilton is without a doubt Victoria Hall, on the south side of Gore Park. Designed by another prominent Hamilton architect, William Stewart, and built in 1887–8 for barrister Alexander Bruce, this narrow, four-storey commercial building features a flamboyant Italianate façade with closely-spaced, round-arched window bays and a widely projecting bracketed cornice. Except for the wood windows and frames, the upper façade was entirely clad in galvanized iron.

While its robust sculptural quality suggests a solid material, I would hazard a guess that William Stewart was not trying to fool his fellow architects, but rather was playfully testing the stylistic versatility of sheet metal. The thin columns, which appear to support the round arches, imitate forms characteristic of structural cast iron; the deeply projecting bracketed cornice simulates the form of a wood cornice; and the window arches with keystones and framing elements simulate forms characteristic of stone.

A close inspection of the upper façade reveals how it was assembled from a multitude of galvanized-iron components, all cut, formed and joined by traditional tinsmithing techniques. The intricacy of the façade construction also suggests that Stewart was testing the skills of the sheet-metalworkers who fabricated and erected it. No documentation has yet been found to identify the firm responsible for this tour-de-force, but it was likely either *Thos. Irwin & Son* or *John E. Riddell*.

33 and 34

The first two slides (31 and 32) show the rather sad appearance of the upper façade after the building had stood vacant since the 1970s up to its recent rehabilitation along with the adjoining McKay Building as loft condominiums. The head-to-toe whitewashing of the rehabilitated storefront and restored upper façade, is rather unfortunate, as the lower and upper sections are distinct elements fabricated of different materials which would have been visually more attractive if articulated by different colour schemes. The upper façade was previously painted a stone-like grey colour.

Despite years of neglect the condition of the galvanized iron was found to sounder than anticipated, with some damaged or missing components and splitting seams. Most of the repairs completed to date were apparently done with autobody filler, *not* a recommended method for conserving sheet-metalwork. However, it is worth noting that when *Riddell Sheet-Metal Roofing* agreed to examine the façade in the late 1980s, the company was not prepared to even give a firm estimate for the cost of repairs, using authentic sheet-metalworking techniques.

To put Victoria Hall into a national context, it is a very rare surviving example in Canada of a sheet-metal façade from the pre-1890 era; only two other sheet-metal facades were known to exist at the time of my thesis research: the Petrie Building in Guelph and the Maison Jean Docile-Brosseau in Quebec City, built

|                      |   |
|----------------------|---|
| <p>35</p>            | <p>respectively in 1882 and 1884. The rarity of the upper façade of Victoria Hall has been recognized by the federal government, which designated the building as a National Historic Site in 1995.</p> <p><u><a href="#">Petrie Building, 15 Wyndham Street, Guelph</a></u></p> <p>For comparative purposes, it is worth taking a closer look at the Petrie Building, which is noteworthy, both for its visually striking façade and the sheet-metalworking techniques employed in its construction. It was designed by Guelph architect John Day and erected in 1882 for one of the town’s most prominent chemists and druggists, Alexander Bain Petrie. Its upper façade features attenuated columns which closely resemble cast-iron ones and an unusual pediment consisting of a broken arch, which frames a mortar and pestle. This sketch appeared in an 1886 publication, along with a description of A.B. Petrie’s business. The sheet-metal components were reputedly supplied by a large American firm, Bakewell &amp; Mullins of Salem, Ohio. This would certainly explain the use of stamped ornaments, such as the two lion heads, which were widely available from the catalogues of such American companies by the 1880s but their use in this country was rare until manufactured by several large Canadian companies in the 1890s. In contrast to the façade of Victoria Hall, which appears to have been entirely hand-crafted by a local enterprise, the façade of the Petrie building embraces a more advanced level of sheet-metalworking technology. Its façade has also been restored, with work completed in 2018: <a href="https://globalnews.ca/news/3970856/petrie-building-stands-tall-again-in-downtown-guelph-following-restoration">https://globalnews.ca/news/3970856/petrie-building-stands-tall-again-in-downtown-guelph-following-restoration</a>.</p> <p><b>Later Period, 1890–1930: Exterior Components</b></p> <p>After 1890, exterior architectural sheet-metalwork was largely restricted to cornices. Sheet metal was rarely used for window caps as this architectural element, associated with the Renaissance Revival and Italianate styles popular in the 1870s and 1880s had passed out of fashion. However, it continued to be widely used for the cornices of both small and large commercial buildings.</p> <p><u><a href="#">Former Right House Department Store, 35–41 King Street East</a></u></p> |
| <p>36 and 37</p>     | <p>This first example is the cornice of the former Right House department store at the north-west corner of King and Hughson streets. The original four-storey section of the building, designed by Hamilton architect William Stewart &amp; Son, was built in 1890-93 for merchant Thomas C. Watkins. It featured an elaborate galvanized-iron cornice surmounted by a parapet of the same material bearing the store name (probably removed in the 1950s or 1960s).</p>   |
| <p>38, 39 and 40</p> | <p>This first set of photos was taken by <i>Historia Building Restoration Inc.</i> prior to and during the repair and repainting of the cornice in 2008. According to President Jeff Feswick, only two of the face plates of the decorative finials were badly deteriorated and had to be replicated by a local sheet-metalworking shop. When the south-west corner section was removed for safety reasons, the inner wood construction of the lookout was revealed.</p>  |

|           |  |
|-----------|--|
|           | <p>This cornice is of particular interest because it was made at a turning point in the history of sheet-metalworking technology, with the introduction of mass-production techniques for the stamping of sheet metal into ornamental shapes. Clearly, such techniques were not used here: like Victoria Hall, this cornice was entirely fabricated by the <i>tin-shop</i> method characteristic of the 1870–90 period.</p> <p><a href="#"><u>Former Stanley Mills &amp; Company Department Store, 11–15 King Street East</u></a></p>  |
| 41        | <p>In contrast to the Right House, the galvanized-iron cornice of the Stanley Mills &amp; Co. department store, erected a decade later took full advantage of the availability of stamped ornaments. This early 20<sup>th</sup> century photo shows the full three-bay façade, of which only one bay survives. From 1924 to the 1980s, the west third of the building accommodated the former Herbert S. Mills China Shop. Designed by Hamilton architect Charles Mills (brother of Stanley) and erected in 1902–03, the department store boasted a flamboyant galvanized-iron cornice, originally surmounted by a balustrade and finials. In contrast to the Right House, its cornice displays a wealth of stamped ornamentation. Fabricated and installed by <i>John E. Riddell</i>, it incorporated a variety of catalogue-ordered ornaments: the crown moulding features a stamped fascia punctuated by a row of six lion heads and the upper faces of the large end brackets are embossed with a leaf motif. (At some point, an insensitive repair was made to the lower portions of the brackets using a different material). All of the large companies offered similar stamped ornaments to the ones shown on this page of a 1902 Pedlar catalogue, which included several lion heads in various sizes and designs. However, the ones on the Stanley Mills building were most likely ordered from the Metal Shingle and Siding Co. in Preston, the company which supplied its pressed-metal ceiling. (see slide 48).</p> |
| 42 and 43 |  |
| 44        | <p><a href="#"><u>Former Stanley Mills Hardware Store, 14 James Street North</u></a></p>   |
| 45 and 46 | <p>Just around the corner at 14 James Street North is the former Stanley Mills Hardware Store, built circa 1915, and also designed by Charles Mills. This cornice was fabricated of sheet copper, as revealed by its green patina: an unusual choice for a relatively small commercial building. Sheet copper was an ideal material for cornice work but due to its considerably higher cost than galvanized iron or steel, it was usually reserved for much larger architect-designed buildings, such as the former office building the Federal Life Assurance Company, built in 1905–06 at the north-east corner of Main and James streets. Its enormous sheet-copper cornice was unfortunately removed in 1964, when the building was owned and occupied by the Sun Life Company (1915 to 1976).</p>  |
| 47        |  |

### Later Period, 1890–1930: Interior Components

Pressed-metal ceilings were a common feature of various building types in Canada from the 1890s through the 1920s and reached a peak of popularity around 1910. They could be found in town halls, churches, schools, hospitals, houses and most commonly in small and large commercial buildings.

48

The circa 1905 catalogue of the *Metal Shingle and Siding Co.* shows a photograph of the pressed-metal ceiling from the Stanley Mills & Co. Department Store, ordered from this company. It was still offering equally ornate metal ceilings in the late 1920s, as illustrated by this page from *General Catalogue no. 28*.

49

Manufacturers all advertised their metal ceilings as being durable, economical, fire-, water-, and vermin-proof, as well as easily installed and maintained. In addition, they were offered in a wide selection of attractive designs yet cost significantly less than an ornamental plaster ceiling. With all of these claimed advantages, it is hardly surprising that embossed metal ceilings were so popular with store owners and merchants in the late Victorian era.

In Hamilton, it is known that such landmark buildings as the old City Hall and the Grand Opera House on James Street North, as well as the Wesleyan Ladies College on King Street East (site of the Royal Hotel annex) all had pressed-metal ceilings, which were lost when the buildings were demolished. Through the early 20<sup>th</sup> century, the fire-resistant quality of sheet metal was an important advantage in institutional buildings like schools and hospitals where the interior structural system was typically post-and-beam construction, with wood floors supported by wood joists. Metal ceilings could slow the spread of fire between floors, thereby buying time for occupants to exit and firefighters to combat the fire.

50

Many fine metal ceilings were undoubtedly lost when blocks of commercial buildings were demolished to make way for the Jackson Square redevelopment in the 1960s and 70s. One such example was the Peebles and Hobson fruit and vegetable store at the corner of King and MacNab streets.

NOTE: The following locations have not yet been revisited. Some businesses may have closed or been relocated.

#### [154 James Street North](#)

51

Today one of the best commercial thoroughfares with late 19<sup>th</sup> and early 20<sup>th</sup> commercial buildings, where original metal ceilings remain intact, often hidden for years by dropped panel ceilings, is James Street North. I mentioned at the beginning, the handsome pressed-metal ceiling in the *Mixed Media* store, located in the 1880 section of the long commercial block running south from Cannon Street. The former corner store was extensively renovated by Dave Kuruc and wife to house their art and print-making supplies business. Investigative work undertaken soon after they took possession quickly revealed to their delight, not only a largely intact original metal ceiling but four hanging light fixtures laying on the upper side of the dropped panel ceiling. Both the ceiling and light fixtures

|                  |   |
|------------------|---|
| <p>52 and 53</p> | <p>were likely installed in the late 1890s or early 1900s. The ceiling was exposed, repaired and repainted and the original fixtures refurbished in time for the store opening in September 2008.</p> <p><a href="#"><u>150 James Street North</u></a></p> <p>Two doors down from <i>Mixed Media</i> was still the location of the location of the <i>Central Fish Market</i> when I photographed the interior in early 1980s. The store was then owned by the great nephew of the original owner Mr. Walmsley, who opened a fish and poultry store here in 1929 and remodeled the interior to look like an English fish shop, with the characteristic black-and-white glazed tile wainscoting and marble counters. This attractive metal ceiling, enhanced by its glossy, reflective paint surface, was, however, almost certainly installed at an earlier date, possibly between 1902 and 1913, when the store served as a bookmaker's shop. In the 1990s it was obscured by a dropped ceiling installed for the beauty salon which moved in when the fish store closed. The current tenant has once again exposed and repainted the metal ceiling, now part of the <i>Loose Canon</i> gallery space.</p> |
| <p>54</p>        | <p><a href="#"><u>170 James Street North</u></a></p> <p>Another metal ceiling worthy of illustration is the one in the <i>Woodpecker Handicraft Gallery</i>. This space was previously rented and renovated by Dave Kuruc, as the first location of <i>Mixed Media</i> opened in October 2005. The metal ceiling was exposed and repainted by Dave but has since been refinished with a high gloss gold paint, which creates quite a dramatic effect and certainly complements the handcrafted art and craft work from India and other parts of Asia. However, it should be noted that metal ceilings were originally always painted a non-metallic colour as the embossed patterns were intended to simulate the appearance of ornate plasterwork.</p>   |
| <p>55</p>        | <p><a href="#"><u>91 John Street South</u></a></p> <p>This survey would not be complete without a final stop at the former <i>Edwin Pass</i> watchmaking and jewellery store at 91 John Street South, which has a complete pressed-metal interior finish: both ceiling and walls. There had been a jewelry and watchmaking business at this location since 1883 and from 1889 until the fall of 2007, it was operated by three generations of the same family, the last of which was Edwin Pass. These photos, taken in the 1990s, show the interior when the building was still owned and occupied by Mr. Pass: even the 1880s Taylor safe just inside the front door was still intact. According to his recollection, the wood wainscoting and pressed-metal ceiling and walls were installed around 1900. As far as I am aware, it is the only store interior in downtown Hamilton with a complete sheet-metal interior finish (both ceiling and walls). Although it may seem out of place in Ontario, the fleur-de-lis motif on the wall paneling was apparently very popular with English watchmakers for watch hands.</p>   |
| <p>56 to 58</p>  |   |

Upon his retirement Mr. Pass sold the building to local historian Robin McKee. The lower floor was subsequently rented out to Lance Cole, a bookbinder and owner of *Pastime*, which he described as an “artisan emporium of curiosities and opportunity”. Lance preserved all of the historic fabric and artifacts, repainted the pressed metal and replaced unsympathetic fluorescent lighting with two hanging mirrored fixtures that had been stored for many years under the counter. The building has since been purchased by John McNally and the façade accurately restored by Alan Stacey of *Heritage Mill* in Dundas:

<https://bayobserver.ca/2021/02/09/built-to-last-not-impress>.

In summary, I have endeavoured to show that there is far more to architectural sheet-metalwork than what are popularly referred to as “tin ceilings”. There were two distinct but overlapping phases of technology related to the fabrication and erection of sheet-metal components, identified here as the *tins-shop* and the *stamping-plant* methods. There are still numerous fine examples of exterior and interior sheet-metalwork on downtown Hamilton buildings dating from the late Victorian era, which I hope will be preserved for future generations to appreciate.