

Victoria's system of weights and measures administration

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Malcolm Campbell is a retired construction industry commercial manager whose interest in scales, weights and measures was sparked by the find of a half pennyweight weight in the Amherst goldfields while metal detecting. From this find ensued a hobby of collecting gold scales and weights. He soon noticed stamps that were not verification stamps of the UK. These small stamps, 3–5 millimetres across, were of a Crown above a letter and a number and 'VIC'. Eventually, finding out that they were from Victoria, the search began for the system of numbering and its meaning. Thank goodness for Public Record Office Victoria!

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Abstract

Victoria became a separate colony of the United Kingdom on 1 July 1851; however, it took until 1864 for a workable system of weights and measures administration to be introduced. Standard of weights and measures were obtained and issued to local authorities to administer in their local areas. These standards were numbered, as were the Crown stamps used by inspectors to indicate that trade weights and measures had been checked and found to be legal to use in the day-to-day businesses of local traders. The registers of issued weights and measures, as well as general weights and measures records for different periods, held by Public Record Office Victoria are highlighted in this article. Examples of how the numbers can assist in identifying where the weights and measures were used in Victoria between 1864 and the 1990 are provided. As far as the author is aware, the history and use of this numbering system has gone unnoticed or ignored by other researchers, but he would be delighted to be shown to be incorrect.

Introduction

As a keen prospector looking for gold with a metal detector in the central Victorian goldfields, I had a great time in the outdoors, researching the history of various areas and detecting with like-minded people I met along the way. I was not (and am still not) the most successful user of metal detectors, but I had a great time enjoying the flora and fauna I encountered, the fellow prospectors I met, the history that surrounded and inspired me, as well as the occasional small finds of gold.

One day before 2010, while detecting in Amherst in central Victoria, I found a small non-ferrous item that I later identified as a half pennyweight weight that was made by W & T Avery Ltd. of England. This, coupled with my interest in gold in Victoria, started another interest: collecting small gold scales in boxes with Avery labels that dated from the time of the gold rushes in Victoria and elsewhere. With some of these came small weights—some with brass pennyweights, others with troy weights, both of which were used from the 1850s onwards to weigh gold. On some of the brass weights were other markings or stamps. Some were English markings that I was able to identify by further internet searches. Others had no solution to their meaning on the internet, so what were they? These stamps were only 3–5 millimetres in size, with a Crown above a letter and a number and 'VIC' beneath. I knew that 'VIC' did not represent Queen Victoria, as I had

gleaned from my internet searches that either 'V' or 'VR' would indicate Queen Victoria. Was it something to do with the colony of Victoria? I reached out to the Australian Measurement Institute for information and, after repeated emails, I eventually received a phone call from one of their representatives in Victoria who was familiar with the Bendigo region. He confirmed that the stamps were indicative of the Victorian weights and measures system and that the numbers were related to the area of use. He knew the number for Bendigo but no others. So, where to go for more information?

I started to look online and tried the website of Public Record Office Victoria (PROV). Here I found some registers that I thought might assist in learning more. As I was still working, I could only attend PROV periodically on Saturdays when they opened and when family commitments allowed. I slowly began my research and the solution to the puzzle gradually became clearer. After I retired in July 2019, I was able to attend the reading room at PROV in North Melbourne more frequently. I completed my review of the registers and sought more information via the individual files for the various local authorities. Thank goodness for PROV, but more particularly for the reading room staff who assisted me to understand the system of files and content of the various boxes. They offered further assistance when PROV updated its website. I am grateful for their interest, understanding and patience.

I subsequently started to enquire at local historical societies and museums to find examples of the local standards of weights and measure as well as the balances and stamps that were used by inspectors. I have shared with local historical societies and museums any knowledge I have acquired in my research at PROV as it applies to their collections and will continue to do so as I find more examples of the local standards held in their care. I have also regularly sought to acquire weights and measures and balances online and at auctions whenever I have found such items and could afford them. In some cases, my research has allowed me to more accurately date when and where certain items were used within Victoria.

Why do accurate weights and measures matter?

It seems that humans are rather opportunistic creatures and some are even downright dishonest. Through the ages, people have been known to shave the edges or surface of gold coins to gain a bit of gold or even to replace them with counterfeit coins. Both sellers and buyers have tried to take advantage of each other, in turn complaining to authorities about the injustice of their experiences. The need for known and accepted standards of weights and measures prompted the development of suitable equipment. Victoria was a colony of England and subject to English law. On becoming a state, Victoria made its own laws but such laws were still based on the English system. Modern English standards were re-established in the mid-1820s after the previous standards were destroyed by fire, and it is from these that Victoria's standards were obtained.

A search of Trove's digitised newspapers using the filter 'Victoria', a date range of 1850–59 and the search term 'weights and measures' reveals numerous warnings to traders to have their scales and weights checked by inspectors, and reports of traders charged with selling underweight bread, meat and vegetables. Open letters to newspapers from local officials expressing concern as to the lack of standard weights and measures suggests that requests to the colonial government were falling on deaf ears. Some businesses advertised services to check and adjust traders' scales. Business was clearly booming in the gold rush climate, but I have yet to find any reference to what measures the inspectors or the police were using as their standard in checking the scales of traders, and against what reference points magistrates dispensed justice. The content of such a search would occupy another story on its own.

Victoria's system of weights and measures administration

As we know, the wheels of government turn slowly, even today. Although Victoria became a separate colony on 1 July 1851, it continued to use the weights and measures legislation extant in New South Wales until 1862, when the first Victorian *Weights and Measures Act* was passed. In 1862 and 1863, the *Victorian Government Gazette* noted the appointment of inspectors of weights and measures and advised where authorised copies of standard weights and measures should be stored; however, the standards themselves were not available at this time. There were still many decisions to be made as to the administration of weights and measures in Victoria, including:

- How many sets of standards were required to allow the proposed system to be successfully implemented?
- On what basis would standards be issued to local authorities?
- How were adequate records of issue, return for reverification and reissue to be kept?
- What would the cost to government be, and what could it recoup from local authorities?
- How often should the standards be checked?
- Which government authority should oversee the requirements of the system?
- Against what superior standards should local standards be tested and how should the testing be carried out?

It was an amending *Weights and Measures Act 1864* that set out the requirements for local authorities or groups of local authorities, known as unions, to be held responsible for the administration of weights and measures in their respective districts. The year 1864 was really the starting point for Victoria to have an organised and well-managed system of weights and measures that lasted until the 1990s. As with most legislation, even today, the detail of the implementation is rarely included in the Act. It is left to subordinate regulations to detail procedural requirements of the implementation and ongoing workings of an Act.

Local standards of weights and measures

A question was raised in Victoria's parliament on 18 February 1862[1] regarding weights and measures previously forwarded to the colony by the colonial agent-general in 1857 (Figure1).

UPARL 1861/62 No A24

1861-2.
VICTORIA.

STANDARD WEIGHTS AND MEASURES.

REPLY to a question put by Mr. MILLISON, 18th February, 1862, for—
A LIST of the Imperial Standard Weights and Measures forwarded from the Colonial Office, and now in the custody of the Government Storekeeper.

Ordered by the Legislative Assembly to be printed, 20th February, 1862.

PARTICULARS of the Standard Weights and Measures received during 1857 from the Colonial Agent-General, and which are deposited at the Government Stores in the custody of the Government Storekeeper.

Twenty-four sets standard weights and measures, together with balances, stamps, &c. Each set is packed in a box and contains as follows:—

Bushel,
Half-bushel,
Peck,
Gallon,
Half-gallon,
Quart,
Pint,
Half-pint,
Gill,
Half-gill,

Brass compo.

with flat glasses to each measure.

BRASS WEIGHTS.

56 lbs.	8 oz.
28 "	4 "
14 "	2 "
7 "	1 "
4 "	8 drachms
2 "	4 "
1 "	2 "
	1 "

28-inch balance with triangles, 15 and 7-inch in mahogany boxes. Three stamps, S.W.,

SM,
Y.R.

One set has been stamped at the Exchequer.

	Cost.	£	s.	d.
Twenty-four sets, at £120 per set	...	2,880	0	0
Paid Exchequer fees	...	5	14	0
Forty-eight packing cases	...	96	0	0
		£2,981	14	0

(Signed) J. M. SPENCE,
Government Storekeeper. 14 | 2 | 62.

By Authority: JOHN FERRAS, Government Printer, Melbourne.

A.—No. 24.

Figure 1: Reply to a question put by Mr Millison, 18 February 1862, *Standard weights and measures*, Government Printer, Melbourne, 1862.

Twenty-four sets of weights, measures and balances were received from the colonial agent-general during 1857 and were deposited in the Government Stores. One of these sets was stamped at the Exchequer in London, which means it would have had a specific indenture number stamped on it. I believe this indenture number would have been 1191, as *Marks and markings of weights and measures of the British Isles* (p. 13)[2] shows that weights and measures with this indenture number were verified on 8 April 1857 and issued to 'Victoria, South Australia'. I believe the reference to South Australia was a typographical error and it should have been Victoria, Australia.

Were 24 sets sufficient for the needs of Victoria's municipalities? Clearly not. In the *Victorian Government Gazette* of 11 September 1863,[3] a contract was awarded to James McEwan & Co. for the supply of 27 sets of weights, measures and balances. James McEwan would have had the sets made in England, later inscribing his own company name on them. The first set of weights and measures was formally issued on 28 July 1864 to the Borough of Prahran.

None of the above 51 sets of weights and measures included sets of troy weights, which would be required to weigh gold and precious metals. Given the gold rush of the 1850s and 1860s, this needed to be addressed. The *Victorian Government Gazette* of 4 November 1864[4] shows that a contract was awarded to SW Magnay for the supply of 51 sets of troy weights. SW Magnay was, in reality, SW Maquay, a manufacturing jeweller in Melbourne at the time. This typographical error in the *Gazette* was subsequently corrected. SW Maquay would also have had these sets of weights made in England. Troy weights were not available for issue to the local authorities until 1866.

What weights, measures and other equipment might a local inspector require to carry out their duties? The list is impressively long:

- Avoirdupois weights (used for trade weight measurement) in three boxes of 56, 28, 14, 7, 4, 2, 1 pounds; 8, 4, 2, 1 ounces; 8, 4, 2, 1 dram. In the 1950s, a ½ dram weight was added to the sets.
- Measures of capacity in three boxes of 1 bushel, ½ bushel, 1 peck, 1 gallon, ½ gallon, 1 quart, 1 pint, 1 gill, ½ gill each with glass strike discs. After World War II, the use of bushel, ½ bushel and peck, which were measures of capacity of dry produce, was phased out.
- Measure of length in a box of 1 yard with subdivisions of the yard marked.
- Troy weights (used for gold and precious stone) in two boxes of 100, 50, 30, 20, 16, 8, 4, 2, 1 ½, ¾ troy ounce; 4, 3, 2, 1 ½ pennyweights; 6, 3, 2, 1 grains. Note that a troy ounce and an avoirdupois ounce are different weights. Also note that a ½ troy ounce is 10 pennyweight and ¼ is 5 pennyweight. Troy weights were only issued to local authorities that had a need to use them.
- Portable balances one of 7 pound capacity and one of 56 pound capacity with a tripod and lifting gear for mounting the 56 pound balance.

- A set of steel punches and brands that were accommodated in a box with 59 compartments. Punches included three Crown steel stamps with a Crown E and the distinguishing number with 'VIC' further beneath; these could range in size from 1/8 inch to 3/8 inch. Obliteration punches were a six-pointed star to obliterate markings on weights determined to be illegal. Numerical stamps from 1 to 9 and 0 of a couple of different sizes. Stamps with 56 LB, 28 LB, 14 LB, 7 LB, 4 LB, 2 LB, 1 LB, 8 OZ, 4 OZ, 2 OZ, 1 OZ, 8 DR, 4 DR, 2 DR, 1 DR, GALLON, ½ GALLON, QUART, PINT, ½ PINT, GILL, ½ GILL. Brands with BUSHEL, ½ BUSHEL and PECK.

Distinguishing numbers of local authorities or groups of local authorities (unions)

From a review of the 1864 legislation,[5] I gleaned that each local authority or group of local authorities (unions) was issued with a distinguishing number that was applied to their local standards and recorded by the authorities. The weights and measures inspectors of each local authority had a set of stamps that included a Crown seal stamp so that, on verification of trade weights and measures, the inspector could stamp the weight or measure with their specific distinguishing number.

An online search of PROV seemed to be the answer and it pointed me to a number of old registers held in the reading room at North Melbourne. As I was still working, I could only get to a few of the Saturday openings. Such were the beginnings of my research at PROV.

It was exciting just to be able to handle and read the 'Register of authorised copies of the weights and measures issued' (Figure 2).[6] The first set of standards was issued on 26 July 1864 and the last entries were added in 1952. All weights and measures issued, returned for periodic reverification or returned for reuse by the authorities were recorded in the register. The record covers avoirdupois, troy weights and measures of capacity and length.

Additional registers were introduced in 1902 to record more details, such as which denominations of weights or measures and balances (scales) were issued or returned for reverification together with details of any maintenance or repairs carried out and the costs incurred by local authorities. If weights and measures from a municipality or union were returned and reissued to another municipality or union, the details were also recorded. These registers are held at PROV, VPRS 9528/P1, 1, 2, 3,



Figure 2: 'Register of authorised copies of the weights and measures issued', PROV, VPRS 9527/P1.

VPRS 9530/P1, 1, a list of standards certified for use by the Central Administration is included. A new body introduced in the early 1950s, the Central Administration was designed to take some of the load and expense from local authorities in situations in which specialised equipment might be needed, as such equipment, if purchased by a local authority, would not be required very often and would, therefore, be an unreasonable expense.

VPRS 9530/P2, 1 includes a record of additional local standards procured by the Central Administration to be distributed to local authorities as needed. It documents the first requirement for additional supplies of standards to be procured. When the Victorian *Weights and Measures Act 1864* was introduced, the authorities obtained 51 sets of standards of weights and measures for distribution to local authorities. It is interesting to note that additional standard weights of 56 pounds and less were manufactured at an explosives factory at Maribyrnong. Other requirements were also met by local suppliers, as overseas suppliers seemed stretched in their capabilities and had difficulty accessing raw materials.

Following the revelation of the distinguishing numbers obtained by reference to the above documents, I started to seek further information about many of the local authorities during the periods covered by these additional registers. I also sought further information about local authorities that had been dissolved or formed after the registers were discontinued in 1965. Obviously there would be more distinguishing numbers to find. In retirement, I have been able to spend more time visiting the reading room and have made use of VPRS 9523/P1, 1-214 (for the period 1950-75) and VPRS 9524/P1, 1-86 (for the period 1975-92) to locate further information about various local authorities and to locate other newer distinguishing numbers. Some of the additional distinguishing numbers were easy to find; others I

stumbled on when reading about another local authority or in general notes or correspondence by the Central Administration. So far, I have recorded 98 distinguishing numbers and the periods in which they existed, as well as a couple of unknowns that may not have been issued with numbers or may have been reissued with a previous number.

I have located several local historical societies and museums that have imperial weights and measures within their collections. For those I have been able to visit, I have provided a report of any information I have been able to glean from the markings on their items. I am aware of a few collections that I have not yet had the opportunity to visit, and I am sure there are still more imperial local standards to be found across Victoria. Some may even be in private collections. I was informed by a former local inspector of weights and measures that metric local standards were required to be returned to the Victorian Government when the system of weights and measures administration by local authorities was scrapped in the 1990s. However, I have seen sets for sale on eBay and have, in fact, purchased one set of weights formerly belonging to a local authority.

An example of distinguishing numbers and tracing the history of a measure of capacity

Distinguishing number 13 can be seen about three-quarters of the way to the right of Figure 4, immediately above a Crown and STANDARD, even though it has been obliterated (over-stamped to strike it out). The number 13 was allocated to the Weights and Measures Union of the Borough of Kilmore and the Road Boards of the Districts of Willowmavin, Pyalong and Bylands and Glenburnie, which was issued with its weights and measures standards on 30 September 1864. This date can also be seen to have been obliterated at the bottom right of the picture. This union was dissolved on 29 December 1865.

This measure was part of the weights and measures standards then issued under distinguishing number 30 on 22 March 1867 to the newly formed Weights and Measures Union of the Boroughs of Dunolly, Tarnagulla and Shire of Bet Bet. The number 30 can be seen in the top left of Figure 4 above a Crown and STANDARD. Immediately below is the date of issue, 22 March 1867. This union operated until 12 August 1903, when it was dissolved. The weights and measures would have been returned to the authorities in Melbourne. The distinguishing number 30 along with the weights and measures were reissued on 1 August 1908 to the Shire of Hampden Camperdown, which operated until 22



Figure 3: Item ST 42808 from Museums Victoria Collections, standard volume, imperial half gallon, primary standard, brass, potter, England, 1863.[7]



Figure 4: Enlargement of the stamps on the measure shown in Figure 3.

September 1953 when it was dissolved, the shire joining the Corangamite Weights and Measures Union. The Corangamite Weights and Measures Union was issued with distinguishing number 44. I believe the measures from the Shire of Hampden Camperdown were returned to the authorities in Melbourne, but that the weights were added to Corangamite's other set of weights numbered 44, becoming set 44A with the 30 obliterated.[8]

By following the distinguishing numbers and the dates, it has been possible to trace the history of where this measure was used between 1864 and the 1950s. Although I have, on occasion, been unable to read an obliterated distinguishing number, I have been able to read early issue dates that have been obliterated, thus enabling me to confirm the initial use of a weight or measure. Understanding this numbering system and the dates of existence of weights and measures local authorities can be a useful tool for researchers.



Figure 5: Three stamps on a set of banker's scales. Photographs by author.

For example, I purchased a set of scales made by W & T Avery and sold as 'circa 1880s'—a vague timeframe often used by auction houses wishing to place an article in the nineteenth century but not really sure when. I had determined that this was a banker's type scale mounted on a box with a drawer. On cleaning it, I found three different number stamps on the pans and brass mounting tee nut on the box (see Figure 5).

With small stamps such as these, it was common for a slight mis-stamping or over-stamping to occur. Figure 5 shows Crown E 18, E 51 and E 8 with VIC beneath. In the middle image, what looks like an F is a mis-stamped E. The right-hand image has an over-stamped 8; presumably, before the second blow on the punch, it moved a bit. The meaning of the E is unknown to me and the only other alpha I have seen is G, but I have not found any documentation for this change.

The above numbers can give us an understanding of where the scales were used:

- The number 18 was allocated to the Union of the Borough of Maryborough and Road District of Tullaroop, which existed between 14 December 1864 and 8 October 1867. Therefore, we know that the scale was used in this area between those dates, most likely in a bank in Maryborough. The number 18 was never reissued.
- The number 51 was allocated to the Gippsland Weights and Measures Union, which existed between 8 February 1885 and 9 July 1888. Therefore, we know that the scale was used in Gippsland in this period, most likely in a bank

in Bairnsdale, Maffra, Rosedale, Avon, Traralgon or Sale. The number 51 was never reissued.

- The number 8 was allocated to the City of Melbourne, which, from a weights and measures perspective, existed between 27 August 1864 and the 1990s. Therefore, the scale was use in Melbourne during this period.

Obviously, not all numbers assist in dating a scale or weight; however, in this case, we know the scale was used in Victoria as early as the mid-1860s in the Maryborough district. The source of details for the above numbers is the 'Register of authorised copies of the weights and measures issued'.^[9]

Conclusion

The information that I have so far uncovered relating to the weights and measures administration by local authorities in Victoria between 1864 and the 1990s can provide a wealth of knowledge for local historical societies and museums, Museums Victoria, antiques dealers, auction houses and private collectors.

I am progressively collating the information I have gathered with the intention of compiling it into a book for ease of reference by others interested in this subject. The 98 distinguishing numbers found to date should make it possible to check any standards held by historical society and museum collections and confirm when and where they were used. As mentioned, I have already shared this information with historical societies that have allowed me access to standards in their collections. This has been well received and has expanded their knowledge about those items in their collections. It has also enabled me to continue to add to my knowledge of local standards and where they were used. Often questions raised by local historical societies cause me to return to PROV to seek further information. As some of the records relating to weights and measures held at North Melbourne are infrequently referenced, they have understandably been relocated to storage at Ballarat, but are still available upon request for ongoing reference.

I am continuing my search for, and collection of, examples of inspectors' stamps on trade weights and measures. The stamps are small and often covered by dirt or have become worn over time, hence they can be difficult to spot. I have not yet found anyone else who shares my interest in this subject but would be glad to know if anyone is following the same or similar lines of research.

Endnotes

- [1] *Victorian Hansard*, 18 February 1862, p. 624 <https://www.parliament.vic.gov.au/4afdae/globalassets/hansard-historical-documents/sessional/1862/18620206-18620320-hansard-combined.pdf>, accessed 28 January 2024.
- [2] Carl Ricketts & John Douglas, *Marks and markings of weights and measures of the British Isles*, Carl Ricketts, Somerset, 1996, available at <https://www.pewtersociety.org/sites/default/files/2021-12/MARKS%20AND%20MARKINGS%20OF%20WEIGHTS%20AND%20MEASURES%20OF%20THE%20BRITISH%20ISLES..CARL%20RICKETTS%20with%20John%20Douglas...281.pdf>, accessed 14 January 2024.
- [3] *Victorian Government Gazette*, no. 94, 11 September 1863, p. 2022, available at https://gazette.slv.vic.gov.au/view.cgi?year=1863&class=general&page_num=2022&state=V&classNum=G94&searchCode=6697540, accessed 14 January 2024.
- [4] *Victorian Government Gazette*, no 113, 4 November 1864, available at https://gazette.slv.vic.gov.au/view.cgi?year=1864&class=general&page_num=2481&state=V&classNum=G113&searchCode=6697538, accessed 14 January 2024.
- [5] *Weights and Measures Statute 1864*, available at https://www.austlii.edu.au/cgi-bin/viewdb//au/legis/vic/hist_act/twams1864322/, accessed 14 January 2024.
- [6] PROV, VPRS 9527/P1, 1, <https://prov.vic.gov.au/archive/VPRS9527>.
- [7] 'Standard volume—imperial half gallon, primary standard, brass, potter, England, 1863', Item ST 42808, Museums Victoria Collections, <https://collections.museumsvictoria.com.au/items/405184>.
- [8] From my observations when I was permitted to view the weights and measures held by the Colac and District Historical Society.
- [9] PROV, VPRS 9527/P1, 1.