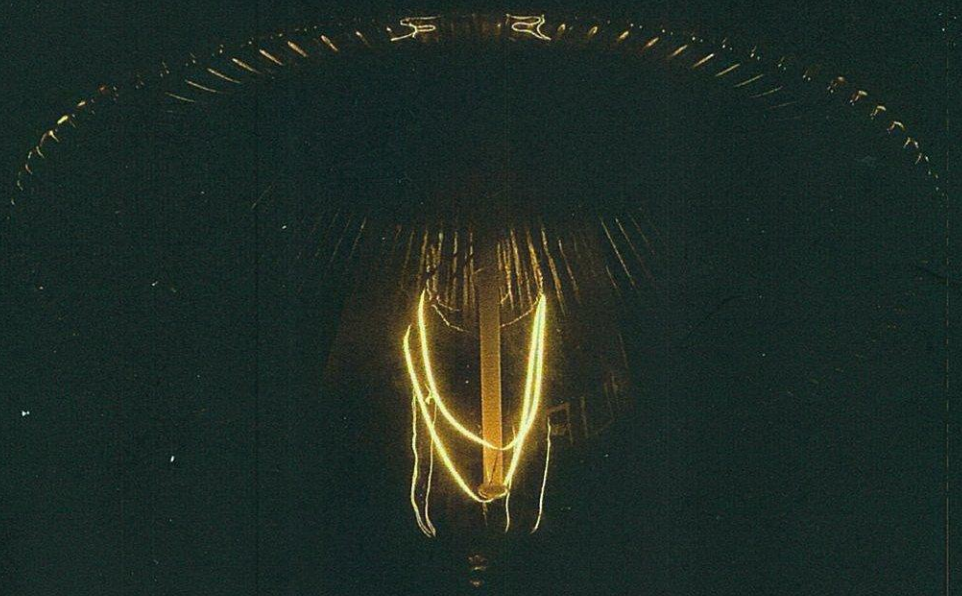
TAMWORTH POWERSTATION MUSEUM

SIGNIFICANCE ASSESSMENT REPORT



Crozier Schutt Associates
September 2010

TAMWORTH
POWERSTATION MUSEUM

STATEMENT OF SIGNIFICANCE

CROZIER SCHUTT ASSOCIATES
MUSEUM, HISTORICAL AND HERITAGE CONSULTANTS

CS

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September 2010

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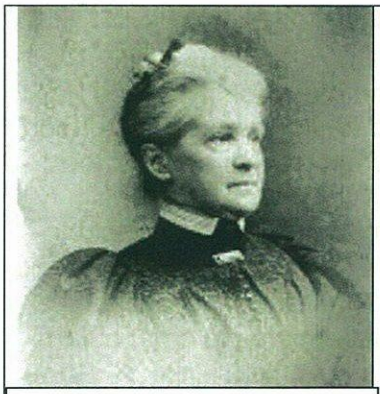
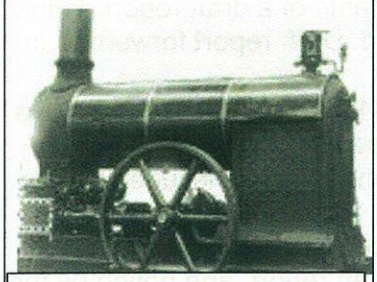


Mayoress Elizabeth Piper, who turned the gold key that switched on Tamworth's street lights in 1888

Façade, restored 1907 Municipal Electric Showroom building



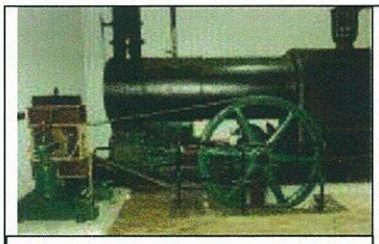
One of the two original Fowler steam engines powering the Tamworth Power Station in 1888

PART I
EXECUTIVE SUMMARY

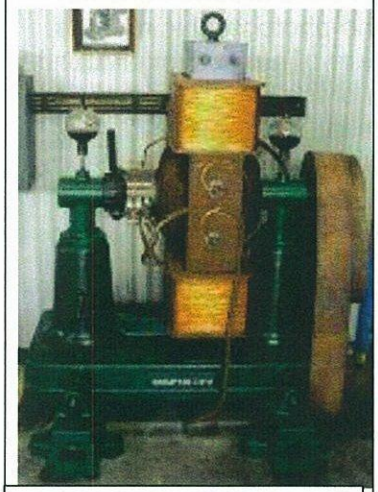
The Tamworth Powerstation Museum commemorates the first use of electric power in Australia for municipal street lighting in 1888. It is housed in Tamworth's restored Municipal Electric Showroom building (1907) and a modern reconstruction of the original 1888 power station engine house. Its collections comprise around 6500 items including some 3000 archival and photographic records. The Museum and its collection are of national significance because of their documentation of the first municipal electric lighting system in Australia. This significance is carried by the 1907 building, the two 1896 Fowler steam engines (essentially similar to the original 1888 engines and significant in their own right as probably the only extant working engines of their type in the world), as well as archives and photographs recording the transition to electric lighting and the subsequent history of the power station.

The Museum also holds nationally significant collections of electric lamps (developed by exchanges with collector Mr ANF Stewart), as well as appliances, particularly electric jugs and vacuum cleaners, and a small but interesting collection of electric lawn mowers. The collection also includes a range of irons, toasters, kettles, stoves, refrigerators and washing machines.

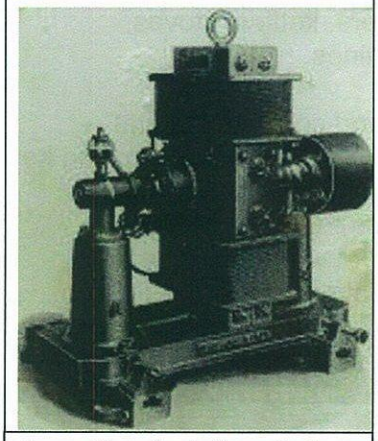
The collection is generally in good condition; digital accessioning is underway with Collections Mosaic; and key documentation systems are in place (including a data sheet for Mosaic, and loan forms). Unusually for a technology museum, the Museum volunteers are well aware of the importance of social context in the documentation of their items. This report makes recommendations in relation to security, clarity of interpretation, and storage, as well as the need for a Preservation Survey.



Restored Fowler steam engine and replica Crompton dynamo.



Replica Crompton dynamo

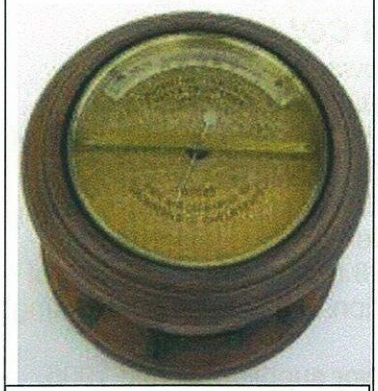


Source illustration for the replication of the Crompton dynamos Electricity in the Service of Man, *3rd Ed. R. Wormell, 1893, p.340*

DESCRIPTION OF PROCESS UNDERTAKEN TO ASSESS AND PRODUCE THE REPORT (THE METHODOLOGY)

The process by which this report has been produced has been notable for the extent and enthusiasm of the support provided by the Museum's volunteers. Key steps in the process were:

- Call for responses to requirements for the project by the Museum
- Evaluation of responses to requirements received
- Invitation of Crozier Schutt Associates to carry out the project
- Agreement by Crozier Schutt Associates to undertake the project, and advice by them of the services to be provided, costs and payment points
- Provision by the Museum of extensive documentation including draft significance assessments for the whole collection, constituent collections and some individual items; as well as its business plan; previous consultants' reports; and Museum publications.
- Request by the Museum for advice on other preparatory work which should be done prior to the consultants' visit
- Response by the consultants advising issues which would be explored during the visit with a request that the Museum provide any further information available which would assist in exploring these issues.
- Development by the consultants of a draft report on the basis of information supplied. Draft report forwarded in advance of the visit.
- Visit by the consultants (16-17 August 2010): extensive review of the collection including object files; photography of the collection; review of issues with the volunteers and the Director, Sandra McMahon, (including pooling of information on comparable collections); review of the draft report, and noting by the consultants of additional information and comments by the volunteers and Ms McMahon.
- Revision of the first draft report by the consultants, and forwarding of a second draft to the Museum.
- Provision of final comments by the Museum on the second draft report
- Provision of the final draft report to the Museum.



Kapp and Crompton potential indicator, *original item from the Tamworth Power Station, 1888*

Kapp and Crompton, current indicator, *original item from the Tamworth Power Station, 1888*

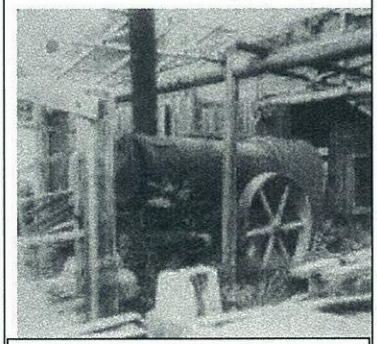
SUMMARY DESCRIPTION OF THE ORGANISATION AND ITS COLLECTION

Tamworth was the first town in Australia to be lit by electricity, in 1888, just nine years after the invention of the incandescent electric light bulb, first by the Englishman Joseph Wilson Swan, who demonstrated his invention in December 1878, followed (independently) by the American Thomas Edison in October 1879. It was also one of the early centres to be connected to the telegraph, in 1861, just seven years after the first telegraph came into use in this country.

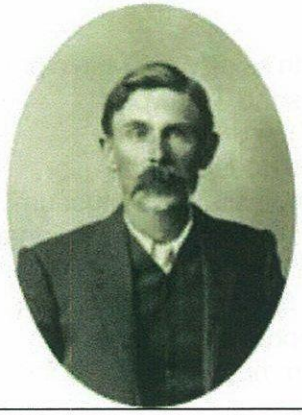
The Tamworth Powerstation Museum was opened on 9th November, 1988, the centenary of the installation of electric lighting in Tamworth. It was the first Australian all-electric museum.

The Museum is housed in Tamworth's restored Municipal Electric Showroom building (built as the Tamworth Municipal Electricity Works in 1907) and a modern reconstruction of the original engine house for the Tamworth power station on its original site. The Museum has been owned and managed by the Tamworth Regional Council since 1997. The Council operates the Museum as well as the Tamworth Regional Art Gallery, and funds the salary of a part-time caretaker, supported by a team of around 30 volunteers, most of whom have a background in the electricity industry.

The Museum is part of a rich cultural environment. Tamworth is widely known as the centre of country music in Australia, which has led to the establishment of the Australian Country Music Foundation Museum. As well as the Tamworth Regional Art Gallery, the region is also home to its own historical society, which is independent of the Powerstation Museum; the Tamworth Aircraft Museum; and the Nundle Woollen Mill, with its historic machinery. These cultural attractions, and particularly the Powerstation Museum and the Art Gallery, have clear potential to add value and bednights to visits for the annual Tamworth Country Music Festival.



Fowler steam engine and boiler at Megan sawmill, 1963



C.E.Hobbs, engine driver ,1888 - 1924

Painted flame light globe, 1910

HISTORY AND SIGNIFICANCE OF THE ORGANISATION AND ITS COLLECTION

What became the Tamworth Powerstation Museum collection began with items relating to the electricity industry in Tamworth collected by two retired employees of the Peel-Cunningham County Council in the 1980s. The Council was then the local electricity supplier responsible for the provision of electric power to the region and it established the Museum in 1988 to mark the centenary of Tamworth's pioneering installation of electric street lighting

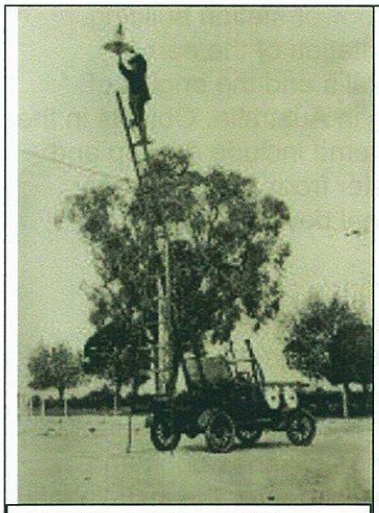
With the merger of regional power suppliers in mid 1995, responsibility for the Museum passed to NorthPower as the local electricity supplier, and later to the Tamworth Regional Council which now manages it through its Cultural and Community Services Department.

As noted, the Museum occupies a working reconstruction of the 1888 power station and the adjacent restored 1907 Tamworth Municipal Electric Showroom building (built as the Tamworth Electricity Works, and expanded to accommodate the showroom in 1909), on the original site of the power station at 216 Peel Street.

Each of the two Crompton No.15 18 kW dynamos of the original power station was driven by a 12 horsepower Fowler cross-compound under-type steam engine. While they are not original to the site, the Museum has been able to obtain two original 1896 16hp Fowler engines of the same type as the original 1888 machines. These are installed in the original location in the reconstructed power station, driving Crompton dynamos replicated from a contemporary sketch by the Museum with support from the Peel-Cunningham County Council. The Fowler engines are believed to be the only extant working engines of their type in the world and are its most significant collection items.

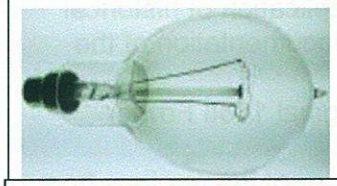
The Museum's collection management policy defines its aim as to:

> *...collect, preserve and exhibit items and archives that will enable it to illustrate and*



Changing street lamps, 1922

Radial wave street light, 1925



Cosmos light globe, UK, 1918

record the account of the development of the electricity supply industry in Australia[1]

The policy identifies three different parts of the collection – Objects and equipment, Technical records related to equipment, and General records – and establishes sub-criteria for collecting in each part. The end date for collecting in each of these parts is c.1960.

Essentially, while the Museum's collection policy is national in scope, its collecting is largely focussed on the history of electrical power in Tamworth, and, more broadly, on the history of electrical technology and its many applications in Australia.

The collection comprises c.6500 items from c.1850 to c.1960, including items of technical interest (such as telegraph equipment, plugs, sockets, measuring instruments, fuses and switches, and items used in the generation of power and the maintenance of lines and cables, including test equipment, linesman's equipment and meters). The Museum also holds a wide range of electrical consumer items, including a comprehensive collection of light bulbs, appliances such as radios, refrigerators, washing machines, heaters, fans, vacuum cleaners, irons, toasters and electric stoves, and a small but interesting collection of electric lawn mowers.

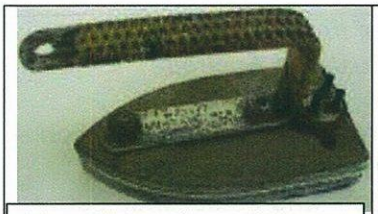
The collection is supported by archival records including documents, records and photographs documenting the installation of the 1888 power station, and the history of the electrical industry. A more detailed sense of the range and significance of the collection emerges from an understanding of its key themes:

Tamworth – Australia's first electric town

History of the buildings

Seen in the context of this theme, the 1907 power station extension building (to which was added the Tamworth Municipal Electric Showroom building in 1909) is itself a collection item. The other building housing the Museum is

[1] Tamworth Powerstation Museum, *Collection management policy*, Oct. 2009, "Statement of objectives"



Magnet Universal iron, c.1920

a reconstruction of the original power station building. Together they provide documentation of the early electricity industry in rural Australia and the origins of municipal electric street lighting in Australia. Objects in the collection which relate to this theme include a Kapp and Crompton voltmeter and ammeter from 1888, the only surviving objects from the original power station.

The collection also includes a range of archival and photographic items which contribute to its ability to interpret the history of the two buildings, including

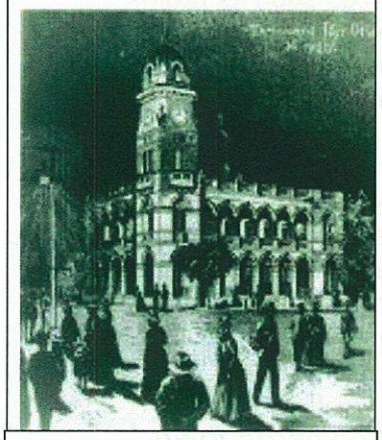
- Photographs of the 1907 buildings in its original condition, before restoration
- The Borough Clerk's letter book, wages book and ledger over the period before and after the installation of the electric street lighting system
- A photograph of the Town Council in 1888
- A pen and ink drawing from the *Sydney Morning Herald* of the 1888 arc lighting system in use.
- Press reports on the architect and builder of the 1907 power station extension, Mr. P.E.Ranclaud.

Tamworth Borough Council, 1888

Fowler engines, Crompton dynamos

While not original to the building, the Fowler engines are significant in their own right as rare examples of their type, and for their value in the interpretation of the buildings as similar to the engines in the original power station. The Crompton dynamos are replicas, and as well as indicating the nature of the equipment used in the original power station, are fine examples of the replication of historical machinery. The archives include documentation of the engines, including

- A photograph of one of the original 1888 Fowler engines
- A photograph of the original order of the engines from the Fowler company order book

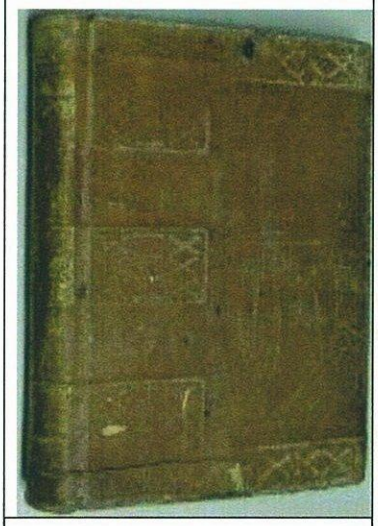


Tamworth Post Office by arc light, 1888, Sydney Morning Herald
Exact date unknown

Electric street lighting

The collection documents in some detail the introduction of electric street lighting to Tamworth, and includes

- arc lights,
- a map of the distribution of street lights in the town,
- electrified gas street lights



Tamworth Borough Council ledger, 1883 - 1900

Tamworth electricity meter, 1907

- photographs of the Borough Councillors who drove the project,
- the Piper display on the switching on of the system by the Mayoress, Elizabeth Piper, including a replica of the gold key which she used to switch on the system
- the Borough Clerk's letter book, which documents the development of the concept by Council,
- the commemorative obelisk of 1938 marking the fiftieth anniversary of Tamworth's electric street lighting, and
- two newspaper reports of the inauguration of the system from the *Sydney Morning Herald* and the Melbourne *Argus*.

Provision of a private supply

The collection documents the manner in which supply from the power station was delivered to private customers in 1907. The 1907 power station extension building clearly contributes to this. Objects which also relate to it include:

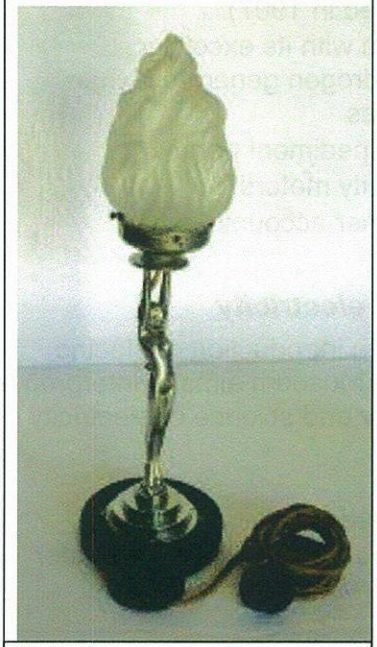
- a 1934 high speed Belliss and Morcom steam engine (similar to the engine installed in 1907)
- the Museum's Battery Room with its excelsior ventilators which vented hydrogen generated when charging the original batteries
- insulators in the ceiling and pediment portal
- examples of the first electricity meters
- rate books recording customer accounts

The history and science of electricity

As context for its key story of the introduction of electric street lighting to Tamworth, the Museum aims to interpret the broader theme of the history and science of electricity by the use of

- portraits of the pioneers of electricity,
- a replica Wimshurst machine (high voltage generator invented by James Wimshurst between 1880 and 1883),
- an example of Oersted's experiment demonstrating that electric currents produce magnetic fields, and a commemorative plate marking the bicentennial of his birth,

Mounted sections of 1884 and 1892 Edison street tubes, recovered in Brisbane in 1992



"Diana" table lamp, c.1950

- original batteries, such as Edison's wet cell and Leclanche cells
- A representation of Arago's discovery of the electro-magnet, and
- a working representation of Faraday's dynamo

Electric light

As well as documenting the development of arc lighting and other technology for the illumination of large open spaces, the Museum holds a substantial and significant collection documenting the development of lighting for domestic and business premises. Items relating to this include

- a significant collection of original electric lamps from 1895 to 2000,
- a range of commercial and domestic lamp shades, and
- the ELMA collection, the only surviving collection from Australia's only maker of electric lamps.

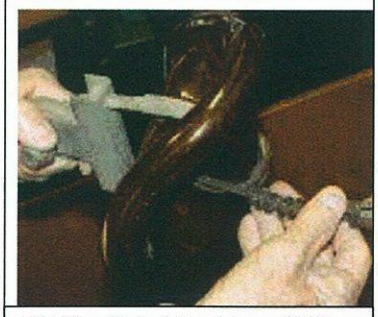
Electrical generation and distribution

Clearly the key items in this theme are the Fowler steam engines and the Crompton dynamos which are central to the history of the power station itself, but can also be used to demonstrate the historic and continuing role of steam in power generation. Other items which relate to this theme include

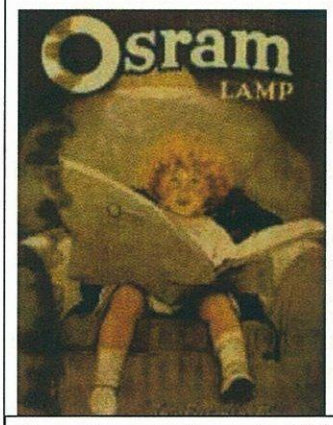
- a section of the original Edison "street tube" solid cable used to deliver power to the Queensland Parliament building in 1886
- test equipment , including laboratory instruments, and test meters
- linesman's equipment, including tools, safety belts, two-way radios
- transformers, insulators and lightning arresters
- farm home-lighting plants

Applications of electric power

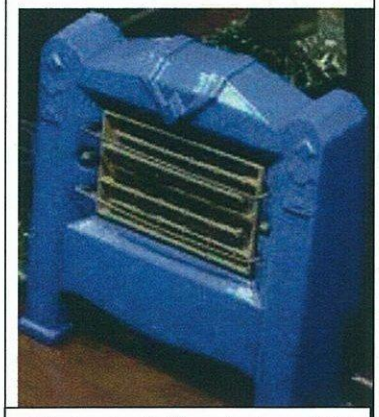
As well as documenting the pioneering role of Tamworth in the introduction of municipal electric street lighting in Australia, the Museum aims to record through its collections the major developments in the application of



11,000 volt strain insulator. c.1930



Osram lamp advertisement, c. 1950



GE pipe clay Art Deco heater, c.1925

electricity commencing with its first practical use in the electric telegraph followed by lighting and electrical appliances. The collection includes sub collections of telegraphs, motors, radios, refrigerators, jugs, washing machines, heaters, toasters, fans, irons, vacuum cleaners and electric stoves. Most of these items come from the geographical area covered by the power station, and in this sense relate to it specifically and to the history of electricity in the region as well as documenting the development of electrical technology generally. Key items include icons such as the Hotpoint iron, and the Metters Early Kooka stove, as well as the Webley and Scott oscillating louvre fan.

Archives and photographs

The object collection is supported by a collection of archival and photographic material, which includes .

- the Borough Clerk's letter book from the 1880s
- the Council wages book from the 1880s
- advertising material
- account books documenting the change from gaslights to electric street lighting.

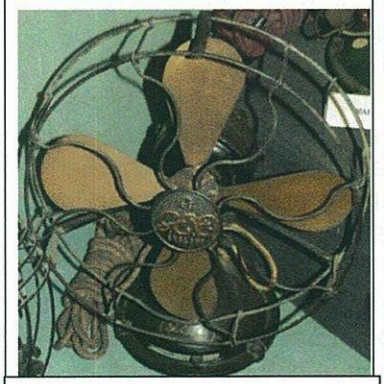
COMMUNITY COMMENTS

The Museum attracts about 2500 visitors per year, including many from interstate and overseas. Comments in the visitors' book such as "Great museum. Glad I stopped an extra day" underline the Museum's capacity to value-add to the Tamworth visitor experience.

A recent exhibition of the Museum's objects in the Tamworth Regional Art Gallery attracted an audience almost equal to the Museum's annual visitation in its normal home. Another recent exhibition for the Local Government State Conference was similarly successful.

The Museum has also attracted a number of awards, including a Tidy Towns Heritage award, an award for those involved in establishing the Museum, and an award for having the best volunteers in Tamworth.

Further evidence of community support is evident in the growing numbers of school visits and bus tours, the



GEC fan, c.1930

Dowsing radiant heater, 1911

Aida mantel radio, c.1940

successful campaign to retain the 1938 obelisk commemorating the 50th anniversary of the events of 1888, and the continuing flow of donations to the collection.

COMPARATIVE COLLECTIONS

The Tamworth Powerstation Museum was the first museum in Australia devoted solely to the development and application of electrical technology. However a number of museums have been established on this general theme since the Powerstation Museum was inaugurated in 1988. They include:

The ETSA Sir Thomas Playford Museum, Kurralta Park, SA

The Museum was established in 1996 and its collection is smaller than that of the Tamworth Powerstation Museum, with some 800 items including machinery and apparatus used by the Electricity Trust of South Australia (ETSA) and previously the Adelaide Electric Supply Company (AESCo), in the generation, distribution and use of electricity in South Australia. Like Tamworth, the museum also holds a collection of commercial appliances and electrical equipment, as well as photographs relating to the South Australian electricity industry.

The Waddamana power station, built for the Hydroelectric Commission of Tasmania

Built in 1910 and decommissioned in 1965, the Waddamana hydro-electric power station is now a museum of the Tasmanian electricity industry, with restored machinery and displays on the pioneering days of power development in the Tasmanian highlands.

The World Energy Museum, Fremantle

The World Energy Museum's focus is broader than that of the Tamworth Powerstation Museum and is on the past, present and future of energy.

The Queensland Energy Museum, Brisbane

The Queensland Energy Museum was originally established in 1997 as a museum of the Queensland

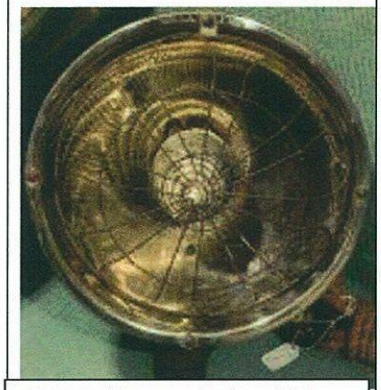
electricity industry but its focus has since been broadened to include all forms of energy. It is managed through a Trust of which Energex, Powerlink Queensland and Ergon Energy are members.

Hotpoint heater, c. 1930

Longreach Powerhouse Museum

The Longreach Powerhouse Museum operates in the original Longreach Powerhouse and retains most of the original generating equipment. The Museum is operated by the Longreach Regional Council and as well as the generating equipment holds a range of non-electrical collections.

There are a number of significant electrical collections overseas at museums including the Smithsonian Institution at Washington, DC; the Birmingham and Manchester Museums of Science and Industry, the Milne Museum (the only museum in the UK focussed solely on electricity); the Science Museum, South Kensington; and the Deutsches Museum, Munich.



GEC beehive cone heater, c1923

STATEMENT OF SIGNIFICANCE

We have assessed the Tamworth Powerstation Museum's collection in terms of the criteria established for significance assessments under the National Library's Community Heritage Grant significance assessment program, and have found the following:

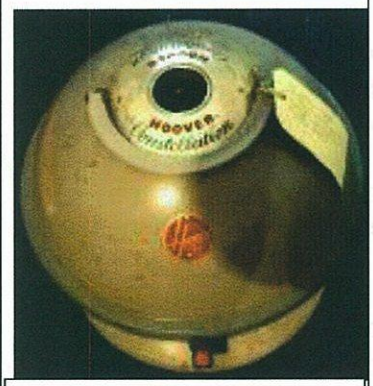
Thor washing machine and wringer, 1930

Primary criteria

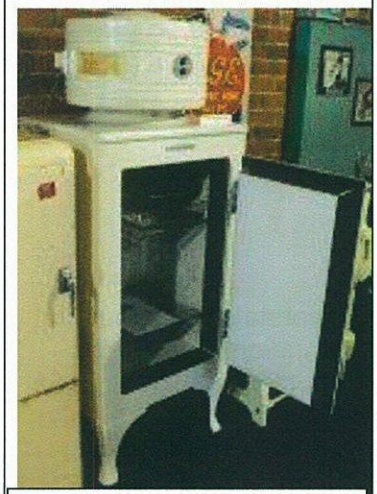
Historic significance

The collection of the Tamworth Powerstation Museum is nationally significant for its documentation of the first installation of municipal electric street lighting in Australia and the later history of electrical power in Tamworth, and for its documentation of the development of electrical technology more generally, particularly in electrical appliances and lighting. Key items include:

- the two 1896 Fowler steam engines
- the Crompton voltmeter and ammeter from the 1888 power station



Hoover Constellation vacuum cleaner, c.1960



GEC pedal opening "monitor top" refrigerator, 1936

Artistic or aesthetic significance

The collection is primarily historical and technical in nature but its considerable collection of appliances and other consumer items is nationally significant and documents trends in the design of such objects. Items of design or craftsmanship interest include:

- Toaster, Landers Frary & Co., Connecticut, USA , 1922
- Electric jug, GEC Australia, Rapid, 1921
- Rotafridge, Malley's, Australia, 1950
- Refrigerator, pedal-opening, GEC Australia, 1936
- Fan, oscillating louvre, Webley & Scott, patent 1950
- Vacuum cleaner, Hoover Constellation, c.1960
- Bulb heater, Dowsing, 1911

Scientific or research significance

The collection is nationally significant in scientific and research terms both because of its historic significance noted above and because of the many applications of electrical technology represented in its collections. Key items include:

- the Fowler steam engines
- the Crompton dynamos (though not original they demonstrate clearly the technology of 1888)
- the potential and current indicators from the 1888 power station.

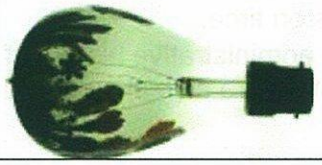
Social or spiritual significance

The story of Tamworth's pioneering role in the history of electricity in Australia is an important one for Tamworth as well as for the country. The Tamworth Powerstation Museum is the only museum which tells the story of Tamworth's role in the development of the Australian electricity industry. It was the first museum in Australia devoted to the history of electrical power and remains the most comprehensive. The location of the events of 1888 in Tamworth makes the Museum's collection of considerable local significance.

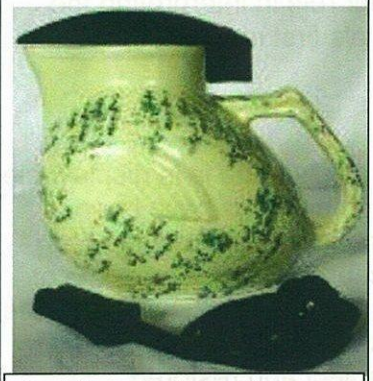
Comparative criteria

Provenance

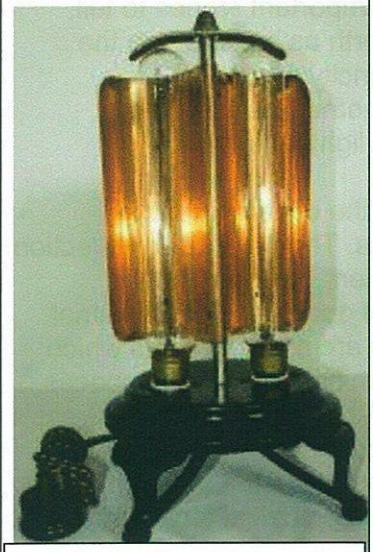
The provenance of the site and buildings is well



Painted light globe; German, 1895



Kookaburra electric jug, 1950



Twin carbon heater radiator, 1898

documented. While gift agreements are now in use for collection items and new donations are accompanied by donor interviews, the exact provenance of many smaller items collected in the early days of the Museum is not known, though most items collected came from the region covered by the power station. An exception to this is the lamp collection, much of which was accumulated through exchanges with NSW collector Mr ANF ("Fin") Stewart. The source of larger items is better documented.

Rarity or representativeness

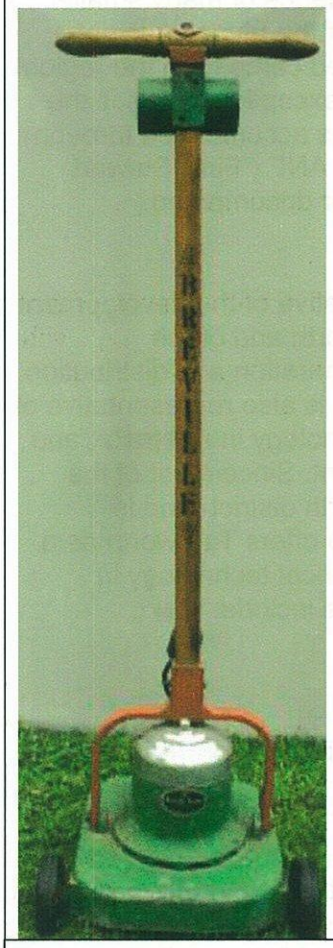
The collection is clearly representative of the development of the electricity industry in Tamworth and of the beginnings of municipal power generation and distribution in Australia. In its broader focus, it is also representative of the development of electrical technology in Australia, and in this sense is nationally significant. Since most of the collection comes from the Tamworth district (and is therefore locally significant), it also offers Tamworth as a case study in the adoption of electrical technology in Australia. Key representative items include:

- the telegraph collection
- the lamp collection
- the electric jug collection
- the electric lawn mower collection
- the electric heater collection

More broadly, the collection includes strong representation of a range of appliances, such as toasters, kettles, vacuum cleaners, irons and fans, as well as technical equipment such as test instruments, meters, cables, installation fittings and materials.

The collection includes a number of rare items significant in the history of electricity in Australia, such as

- The Edison "street tube" – the only other known examples are held by the Queensland Museum, the Queensland Energy Museum and the Edison Museum in the US.
- The only known Type C4, 75hp Belliss and Morcom steam engine still to be seen in Australia, of five originally imported



Breville electric mower, c.1950.

- The Siemens paper tape embossing Morse telegraph register, c.1850, one of only four known in Australia
- The Smiths synchronome master frequency control clock used in the 1922 Tamworth power station to keep the community`s electric clocks on time.
- Archival records relating to the administrative history of the 1888 municipal lighting system are also clearly rare and significant.

However, the most significant items in the collection in terms of their rarity are the two 1896 Fowler steam engines, which are nationally significant both as examples of steam technology and for their role in interpreting the generation of power by Australia's first municipal power station.

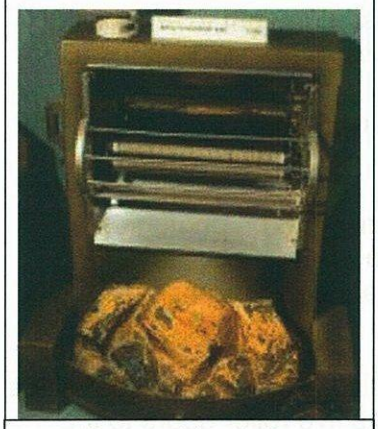
Condition or completeness

The bulk of the collection is on display and is in displayable condition and complete. While some items have been restored to working order, their original appearance has generally not been altered, except in the case of some of the larger pieces of machinery, such as the Fowler engines and the 1934 Belliss and Morcom engine, which were rescued from many years of neglect and restored.

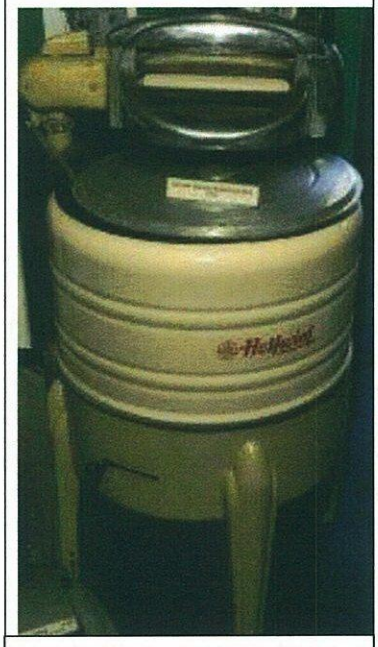
Interpretive capacity

The Museum has a number of important stories to tell, most notably the role of Tamworth as a pioneer in the development of municipal electricity supply and distribution, and as a model for other towns in the installation of their own electric lighting systems.

The collection also documents the development of electrical appliances in Australia. The Museum's collection of light bulbs provides an excellent basis for the interpretation of the evolution of domestic and industrial lighting, and is supported by its arc and gas lights which document the history of the illumination of public spaces. The nationally significant ELMA collection (from Australia's only manufacturer of electric light bulbs and still to be processed) should add considerably to the Museum's ability to document this aspect of electrical technology in Australia.



Hecla "Coalaglow" fire, 1945



Hotpoint wringer washing machine, c.1950

The Museum's archives hold significant records (such as the Council rates book and the Borough Clerk's letter book) relating to the introduction and later management of electrical street lighting in Tamworth, as well as on the careers of pioneers of the electrical industry such as O.W. Brain, first engineer to take charge of the Tamworth Power Station, in 1889. At the same time, the Museum's photographic collection provides valuable context for a number of the stories which can be told through the objects.

The Museum's exhibitions on the whole are generic rather than thematic. Like is grouped with like – electric jugs with electric jugs, refrigerators with refrigerators, and so on. Recognising the problems with space, there is considerable scope for more thematic displays (see Key recommendations, below).

The Museum has produced a number of its own publications on themes related to the introduction of electric street lighting in Tamworth, and on broader aspects of the history of electrical technology.

KEY RECOMMENDATIONS

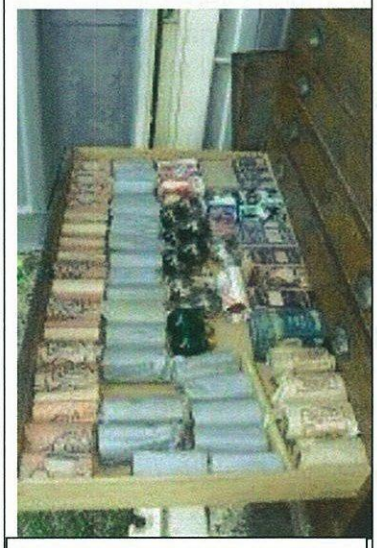
The Museum is making good progress in a number of areas of collection management and documentation. Collection data is being captured via a Collections Mosaic database; a collection management policy has been adopted and implemented; key forms (record sheet, loan forms and so on) have been adopted; a location scheme is in place to record the locations of collection items; a program of photographing collection items is underway; and, most notably, the Museum has developed its own specialist classification scheme for its objects.

At the same time, the Museum may wish to consider a number of recommendations for future planning. In order of urgency:

Security

The great preponderance of the Museum's objects are on display in a form of open storage, and because of the very limited number of display cases available, many of these

items (including many small and concealable objects) are openly accessible to the public and therefore at risk.



Lamp storage, container store

Recommendation 1: that funds be sought to enable display of collection objects in display cases only.

Recommendation 2: that duplicate objects be withdrawn from display.

Recommendation 3: that the displays be photographed and the photographs checked against the displays, perhaps monthly, for missing items and damage.

Storage and conservation

The Museum's main storage is in three shipping containers and the main exhibition area has five roller doors to the outside, allowing the penetration of dust. The archives include a number of important items from the period of the establishment of the power station and later, such as the Council rates book, and the Town Clerk's letter book, which need to be assessed for their conservation needs and housed appropriately.

Recommendation 4: that the Museum apply for a Community Heritage Grant to commission a preservation survey with particular emphasis on the archives.

22.000 volt glass pin insulator, 1955

Recommendation 5: in preparation for the preservation survey, that temperature and humidity readings be taken in the containers for at least a week in at least summer and winter, and preferably spring and autumn as well.

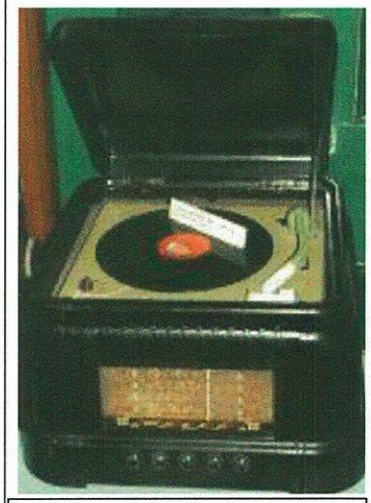
Recommendation 6: that efforts be made to secure more appropriate storage space – well ventilated, dry, dust free, without exterior windows, well insulated.

Documentation

As noted, the Museum is making good progress with its collection management and documentation. Our only recommendation is:

Recommendation 7: that methods used to number collection objects be reviewed to ensure that numbers are

permanent while the objects are with the Museum, removable should they leave the collection, and applied without damage to the object. An appropriate guide such as *Museum methods* (Museums Australia, New South Wales) should be consulted.

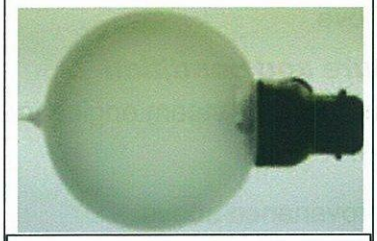


Kriesler short wave radio and four speed turntable, c.1940

Interpretation

As noted, and with some exceptions, objects are largely displayed in a form of open storage, with like objects grouped together. A4 pages of typed information on the walls are valuable sources of contextual information on the overall categories of object displayed, but are hard for some visitors to read due to length, point size and lack of design. Many objects are unlabelled.

Recommendation 8: that thematic displays be developed where feasible, and in particular that the story of the establishment of electric street lighting in Tamworth be given more prominence in the Museum by a more fully developed thematic exhibition. The subjects of other thematic displays may be suggested by the summary of collection themes above.



Gabriel and Angenault 20w lamp, France, 1910

Recommendation 9: that where it is determined to leave the current generic displays in place, each area (electric jugs, refrigerators etc) be identified by professionally designed interpretive panels providing an overview of the section and breaking the current unrelieved mass of objects into perceptible themes. .

Recommendation 10: that all objects on display be labelled, and that the labels establish the context of the item in relation to the theme of the major interpretive panel.

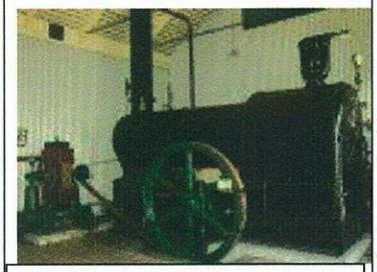
Externally frosted candle lamp, 1925

PART II
Assessments of the most significant items in the collection

Fowler steam engine 7846, 1896

Brief description

Fowler steam engine no. 7846 is a double-acting, semi-



Restored Fowler engine and replica Crompton dynamo

portable, cross-compound, under-type steam engine. Of the same design as the 12 nominal hp engines installed in the Tamworth Power Station in 1888, it is a little more powerful at 16 nominal hp, developing 56 indicated hp at 145 rpm with steam at 140 lbs per square inch.

History and provenance

Engine 7846 was built at the Steam Plough Works of John Fowler & Co. (Leeds), in November 1896 and supplied to Northend Territories Goldfields. It is known to have powered a chicken wire netting weaving machine for BHP-Lysaght's Waratah, NSW plant and was then acquired for Wetten's chaff mill at Henty, NSW. It was onsold to Mr Jack Brown of Warrnambool, Victoria in 1983, and acquired from him by the Peel-Cunningham County Council for the Tamworth Powerstation Museum in 1987.

Community recollections

The engine is not originally from Tamworth so the community's recollections of it date from its installation in the Museum, but the visitors' book provides evidence of visitors' appreciation of its presence in the Museum.

Context of use

See History and provenance above.

Type of material, manufacture and condition

Type of material: engine 7846 is a normal steam engine in terms of its constituent materials.

Manufacture: see History and provenance above.

Condition: the engine has been fully restored to working order, along with its companion Fowler engine, 7586 and the 1934 Belliss and Morcom engine, 7317.

Comparative examples

The Museum has tried and failed to locate any other remaining examples of the Fowler steam engine in Australia, other than a discarded boiler shell over a dismantled engine underframe found in 1987 on the Palmer River goldfields in North Queensland. Mr Chris Lloyd, advisor to the Department of the Environment, Water, Heritage and the Arts on the export of steam engines, is also unable to identify any other engines of this

Fowler engine undermounted pistons

type in Australia. Advice from the Museum of English Rural Life, which holds the records of the Fowler Steam Plough Works, is that there are no surviving examples in the UK and that they were only ever exported to Australia (confirmed by the editor of *Steaming*, magazine of the UK National Traction Engine Trust). It seems clear that engine 7846 and its companion 7586 are the only working Fowler undertype steam engines remaining in the world.

Statement of Significance

Historic significance

The engine is of national significance because with its companion engine held by the Tamworth Powerstation Museum it is the only known extant machine of its type, and because it is of the same design (if greater capacity) as the 1888 Fowler engines that powered Australia's first municipal street lighting system.

Artistic or aesthetic significance

NA

Scientific or research significance

The engine and its companion are the only known extant Fowler under-type steam engines. The Museum is aware of only five other under-type engines (of other makes) extant in Australia and of these only two are operational. The engine therefore has national research significance.

Social or spiritual significance

The engine has local significance in the Tamworth district because of its ability to assist in the interpretation of the Tamworth Power Station story.

Comparative criteria

Provenance

See above. The provenance of the engine is largely known and documented back to the original factory.

Rarity or representativeness

The Museum has accumulated considerable evidence that engine 7846 and its companion 7586 are the only extant

engines of their type.

Condition or completeness
The engine is fully restored and in operating condition.

Interpretive capacity
The engine and its companion are the key components in the Museum's story of the Tamworth Power Station and therefore of Australia's first electric municipal lighting system.

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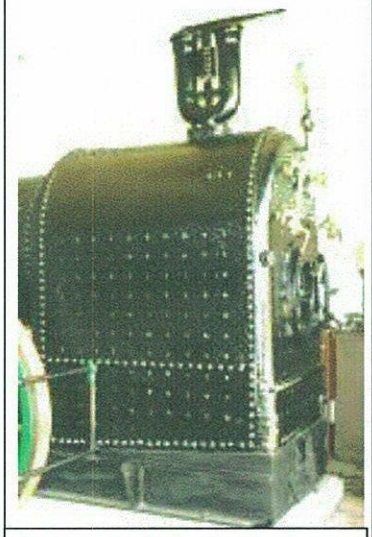
Fowler boiler, c.1896

Brief description

The boiler is a locomotive style boiler fabricated from 12.5 mm steel plate with a barrel 2.3m long and 1.0m in diameter, and 73 50mm fire tubes. The curved top fire box is approximately 1.0 x 1.0 x 1.2m deep and is fitted with two water level gauge glasses and a Bourdon pressure gauge. All joints are swaged and riveted. It is mounted over one of the Museum's two 1896 John Fowler under-type steam engines in accordance with the Fowler design.



Restored Fowler boiler,c.1896

History and provenance

Like the original Fowler engines, the 1888 boilers were no longer available when the Museum was established in 1988. This boiler was found part buried in a creek bank at Megan, via Dorrigo, NSW, on a property owned by Jim and Mary Kell. As indicated in a 1962 photograph of it mounted over the remains of a steam mill engine, it had been used for saw milling. The Kells donated it to the Museum and it was recovered by the Peel-Cunningham County Council for the Museum in 1987.

Community recollections

Community recollections are of the boiler as a part of the Museum and its interpretation of the original 1888 power station.

Context of use

See History and provenance above

Type of material, manufacture and condition

Type of material: largely steel plate (see Description

above). The boiler is a normal steam boiler in terms of its constituent materials.

Manufacture: see History and provenance above.

Condition: the boiler has been made presentable but current boiler regulations make it impossible to restore it to working order.

Comparative examples

Fowler boiler at Megan, 1976

One similar boiler (though larger than the Tamworth example) has been identified with the remnants of a Fowler under-type engine on the Palmer River goldfields in North Queensland. No other examples have been discovered. The Museum of English Rural Life (UK) confirms that no other examples are known in the UK. The Museum believes that their boiler and the Palmer River example are the sole extant boilers of their type.

Statement of Significance

Historic significance

The original Fowler under-type engines used at the Tamworth Power Station were supplied with 12hp boilers appropriate for powering the 12hp Fowler engines. This example is identical in design to the original 1888 Tamworth boilers.

Artistic or aesthetic significance

NA

Scientific or research significance

The boiler has national significance as the only extant boiler of its type.

Social or spiritual significance

The Kell family are well aware of the boiler's presence at the Museum and proud of their role in placing it there. The Tamworth community relate to it as part of the story of the Tamworth power station told at the Museum.

Comparative criteria

Provenance

The provenance of the boiler is only partly established. Fowler began making engine and boiler sets especially for the new electric lighting industry in 1886. This boiler was

made by Fowler, but its history is unknown between 1886 and its discovery at Megan in 1962.

Rarity or representativeness
See Comparative examples above.

Condition or completeness
The boiler has been cosmetically restored. Its construction prevents its compliance with today`s boiler code, so working condition cannot be achieved.

Interpretive capacity
The boiler, together with the under mounted working engine, is a key component in the Museum's story of the Tamworth Power Station and therefore of Australia's first electric municipal lighting system.

Belliss and Morcom steam engine 7317, 1924

Restored 1934 Belliss and Morcom engine and generator

Brief description

This is a Belliss and Morcom type C4, cross-compound, vertical, high speed reciprocating steam engine developing 75hp at 575 rpm with steam at 120 lbs per square inch.

History and provenance

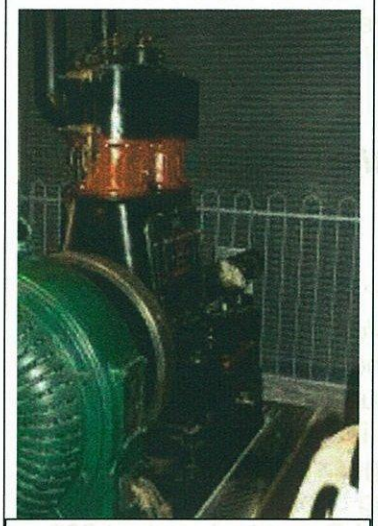
The engine is of the same make, type and size as the two type C4 engines (serial numbers 3221 and 3222) which replaced the original 1888 Fowler engines at the Tamworth Power Station when power was supplied to homes and shops in 1907. This example was purchased by G.L. Briggs & Sons, saw millers of Briggsvale via Dorrigo, NSW in 1924. It was donated to the Peel-Cunningham County Council for the Museum by Mr Robert Briggs in 1989 and restored by Museum volunteers in 1991. It was installed in the Museum in 1992, in the same position as one of the original 1907 engines.

Community recollections

Community recollections are of the engine as a part of the Museum and its interpretation of the 1907 power station.

Context of use

See History and provenance above.



Restored 1934 Belliss and Morcom engine (another view). The engine is in the same position as its 1907 predecessor.

Type of material, manufacture and condition

Type of material: largely cast steel. The engine is a normal engine in terms of its constituent materials.

Manufacture: see History and provenance above.

Condition: the engine has been fully restored to working order

Comparative examples

As recorded by Mr John Norris of Beaufort, Victoria, only five Belliss and Morcom engines of this type and size were imported into Australia, however the locations of the other four are not known. As far as the Museum is aware, this is the only extant engine of this make, type and size in Australia.

Statement of Significance

Historic significance

The engine is of national significance because as far as is known it is the only extant machine of its type in Australia, and because it is of the same make, size and type as the 1907 engines that expanded Tamworth's power supply to include homes and shops.

Artistic or aesthetic significance

NA

Scientific or research significance

The engine has national significance as the only known extant working engine of its type.

Social or spiritual significance

The Tamworth community relate to the engine as part of the story of the Tamworth power station told at the Museum.

Comparative criteria

Provenance

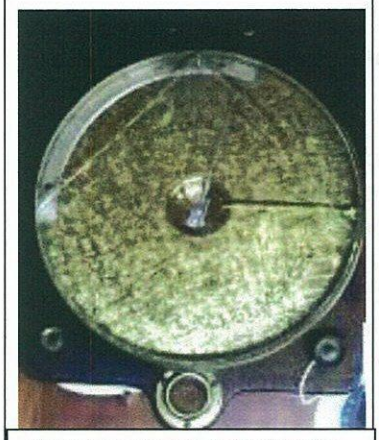
The provenance of the engine has been fully established from its manufacture in 1924.

Rarity or representativeness
The engine is the only known example of its make, size, type and design in Australia.

Condition or completeness
The engine is fully restored and working.

Interpretive capacity
The engine is of the same make, type and design as those installed in the power station in 1907 and is therefore central to the Museum's interpretation of the 1907 plant. It also complements the Museum's interpretation of the original 1888 installation.

Kapp and Crompton potential indicator from the 1888 Tamworth power station



Crompton current indicator from the 1888 Tamworth power station

Potential and current indicators from the 1888 power station

Brief description

1. *Current indicator*, Crompton's patent 616. Made by Crompton and Co., Chelmsford, UK. The instrument has a circular brass case and etched brass face with a separate engraved scale, numbered 0 – 50 – 100 from right to left in marked 5 unit intervals, mounted on a wooden baseboard with large brass terminals, leveling screws and a level indicating bubble.
2. *Potential indicator*, Kapp and Crompton's patent 586. Made and calibrated by Crompton and Co., Chelmsford, UK. The instrument has a wooden case and an etched brass face with separate scale numbered 0 to 250 volts from right to left in 50-volt steps.

History and provenance

Both instruments were installed in the original 1888 Tamworth Power Station to measure the quantity of the direct current electricity supply provided for street lighting by the Crompton dynamos powered by the Fowler steam engines.

Community recollections

The instruments are valued by the community as the only surviving objects from the original 1888 power station.

Context of use

See History and provenance above.

	Type of material, manufacture and condition *Type of material*: see Brief description above *Manufacture*: see Brief description above *Condition*: the instruments are in good, displayable condition. ***Comparative examples*** The Powerhouse Museum, Sydney, holds a Kapp and Crompton current indicator, 0-100 amps (B1253), but does not provide a date, patent number, image or description on its website. The Powerhouse Museum also holds a Crompton and Co. ammeter, model 601 (K32), but does not provide a date, patent number, image or description on its website. ***Statement of Significance*** **Historic significance** The instruments are primarily significant for their association with the 1888 Tamworth Power Station, which powered the first municipal lighting system in Australia. They are the only extant objects directly associated with the power station. The power station is also documented by photographs and archival records held by the Museum, which also provide context for these instruments. The instruments are also significant as early examples of electrical technology in Australia. The Museum reports that correspondence from Crompton Parkinson, the successor company to Crompton and Co. (1962) indicates that these were the first instruments of their kind ever made. **Artistic or aesthetic significance** NA **Scientific or research significance** The instruments have scientific and research significance as representative of early electrical measuring instrumentation. **Social or spiritual significance** The instruments were saved from the 1888 power station

when it was replaced in 1907 and were retained by the Tamworth Historical Society until1988 when the Museum was established, denoting a considerable local sense of their social significance as the last remaining objects from the 1888 Tamworth Power Station.

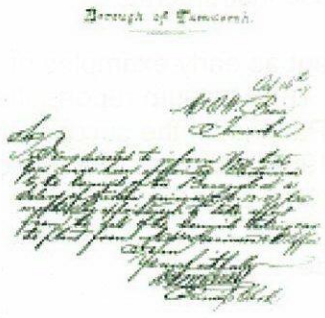
Comparative criteria

Provenance
Provenance of the instruments has been demonstrated from their manufacture by Crompton and Co, and their installation in the Tamworth Power Station in 1888.

Rarity or representativeness
It has not been possible to demonstrate the rarity of these instruments, but they are representative of electrical measurement technology in the 1880s.

Condition or completeness
The instruments are complete and in good condition.

Interpretive capacity
The instruments are central to the Museum's interpretation of the original 1888 Tamworth Power Station. They are also useful in indicating the nature of electrical measuring technology in the 1880s.



Letter of appointment, O.W.Brain, 16 October, 1889

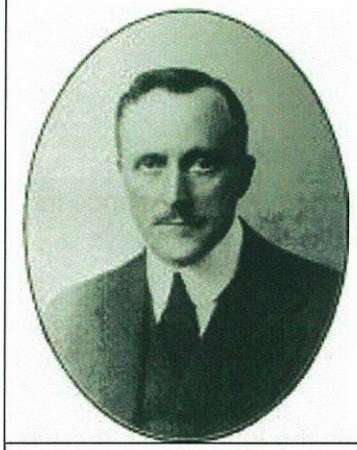
Letter of appointment, O.W. Brain, 1889

Brief description

This is a copy from the Borough Clerk's letter book of a handwritten letter from D.F.W. Veness, Clerk of the Tamworth Borough Council, to Orlando William Brain, appointing him as the first manager of the Tamworth Power Station, dated 16th October, 1889.

History and provenance

The Tamworth Power Station was established under a contract between the Tamworth Borough Council and Messrs Harrison and Whiffen (18th January 1888), providing for the contractors to operate and maintain the plant for 12 months from the first switching on of the system on 9th November 1888. Council would then be responsible for the power station and on the



O.W.Brain, engineer in charge of the Tamworth Power Station, 1889-1896

recommendation of the contractors asked William Brain to manage it. Brain had been trained in England by R.E. Crompton and Co., and in 1889 was working with the Crompton Electric Light Company at 16 Carrington Street, Sydney. This letter is a file copy of his letter of appointment from the Council Clerk's letter book, held by the Tamworth Powerstation Museum.

Community recollections

The letter is a well recognised icon of the Museum's archival collection, along with the Borough Clerk's letter book itself.

Context of use

The copy was generated as part of standard clerical practice at this time, to keep a file copy of correspondence in a letter book.

Type of material, manufacture and condition

The letter is one page in the letter book, on fine paper and in good condition.

Comparative examples

NA

Statement of Significance

Historic significance

The letter is of national significance in historical terms. It documents the appointment of O.W. Brain as engineer in charge of the Tamworth Power Station, the first provider of municipal street lighting in Australia. It is also important in documenting the career of Brain himself, whose obituary in the *Sydney Morning Herald* of 9 June 1936 said of him that "he, more perhaps than any other man in Australia, set an example of pioneering engineering effort in many directions…which it will be hard for others to follow." As well as operating the Tamworth plant, Brain was unanimously elected first president of the Electrical Association of Australia in 1915, having by then already been successfully involved in a string of electrical enterprises in mining, tramways, and telephones.

Artistic or aesthetic significance

NA

Scientific or research significance
The letter is an important document in the history of Tamworth's power station and in the career of O.W. Brain, a pioneer in many applications of electrical technology in New South Wales.

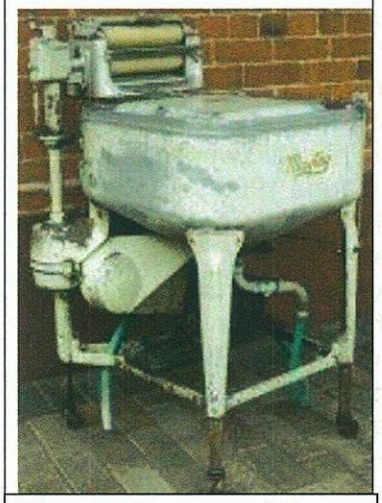
Social or spiritual significance
The letter documents the Tamworth Borough Council's assumption of responsibility for the management of its power station and the first municipal street lighting system in Australia.

Comparative criteria

Provenance
Provenance of the letter is established by its presence in the letter book of the Borough Clerk.

Rarity or representativeness
The letter is by its nature unique.

Condition or completeness
The letter is in good condition as is the letter book, though consideration needs to be given to the manner of its long term storage and management.



Maytag washing machine, 1929

Interpretive capacity
The letter has significant interpretive capacity in documenting the history of the power station and Tamworth's municipal lighting system, and the career of O.W. Brain.

Maytag washing machine, 1929

Brief description

The Museum's Maytag washing machine is a top-loading machine with a shallow washing basin area and four legs. A power wringer is mounted on the top edge and the motor is housed under the washer basin.

History and provenance

The Maytag Washing Machine Company was founded in 1893 in the US, and was one of the few companies to make a profit through the Depression. This particular

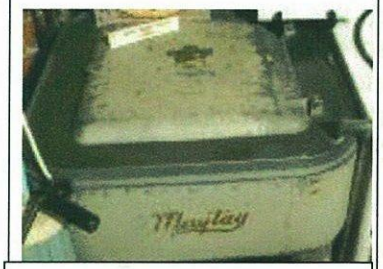
machine has a strong local story. It was purchased by Mrs Eliza Morris of Carthage Street, Tamworth in 1929 and was still in service in 1988, justifying its high initial purchase price of £60.

Community recollections

This Maytag washing machine's 59 years of service has been featured in the Tamworth local press.

Context of use

The item's original purchase in 1929 and its use until 1988 are documented by the Museum.



1929 Maytag washing machine – top, showing signs of heavy usage

Type of material, manufacture and condition

Type of material: the item's main constituent materials are cast aluminium and steel.

Manufacture: the machine was made by the Maytag Washing Machine Company.

Condition: the item was used for 59 years and shows the wear that might be expected.

Comparative examples

A Maytag washing machine of approximately this vintage is held by the Powerhouse Museum (85/1529). A full description is not available on the Museum's website.

Statement of Significance

Historic significance

The item has strong local significance because of its documented 59 years of local service. It is significant in a more general way as an example of the application of electricity to laundry from the 1920s.

Artistic or aesthetic significance

NA

Scientific or research significance

The washing machine's local history makes it a significant item for understanding the adoption of laundry technology in the region.

Social or spiritual significance

The item's local history and publicity through the Tamworth

media has given it local standing.

Comparative criteria

Provenance

The item's provenance is well established, from its purchase from agent Jack Eather of Moree through to its local usage by Mrs Morris for 59 years.

Rarity or representativeness

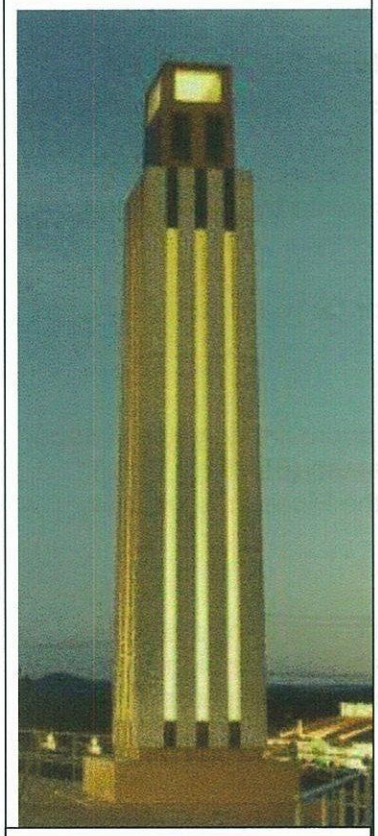
The item is of representative local significance. Maytag was an early manufacturer in this area which had particular success in the Depression when this item was purchased. Mrs Morris can be seen as a representative local consumer, and her purchase and use of the machine an example of the broader application of electrical technology to domestic tasks from the 1920s.

Condition or completeness

The item is understandably worn but otherwise in good displayable condition.

Interpretive capacity

The item has useful interpretive capacity in telling the story of the application of electricity to domestic purposes through the particular story of its local usage.

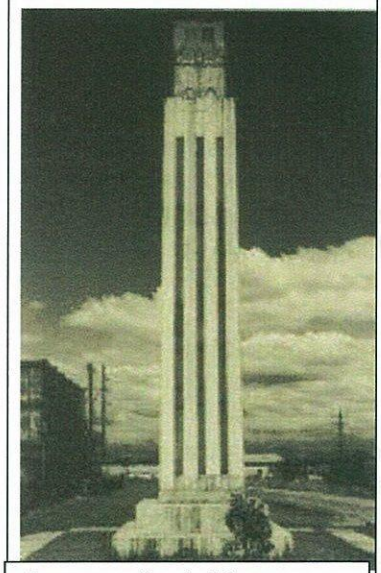


1938 commemorative obelisk illuminated. Photographed in 1987

1938 obelisk marking 50th anniversary of the power station

Brief description

The Tamworth obelisk is a structure 9m in height, tapered, hollow, rectangular, and built of reinforced concrete. It is 2.46m x 2.0m at its base, tapering to 2.16m x 1.6 m, with a 1.8 x 1.2m x 1.68m high crown. It stands on a stepped concrete base. The face of each side has three equally spaced translucent amber coloured lexan windows extending the full height of the structure. These are illuminated at night from within by a 400W high pressure sodium vapour lamp. The outer surfaces are finished with exposed white aggregate render. Plaques on its base proclaim its role in commemorating the beginnings of Tamworth's electric street lighting. An additional plaque was added to mark the system's centenary in 1988, and a time capsule incorporated into it for opening in 2088.



Commemorative obelisk as photographed in 1938

History and provenance

The obelisk was erected on the New England Highway in front of the 1922 power station in 1938 to mark the 50th anniversary of the inauguration of Tamworth's municipal electric street lighting system. It was unveiled by the NSW Minister for Works and Local Government, and refurbished by the Peel-Cunningham County Council in 1986

Community recollections

The obelisk has been a prominent feature of Tamworth for 72 years.

Context of use

Symbolising a column of light, the obelisk marks Tamworth's pioneering role in the use of electricity in street lighting.

Type of material, manufacture and condition

Material: the structure is largely of reinforced concrete with lexan windows.

Manufacture: it was designed by the Council's Civil Engineer, E.W. McCaudless and erected under the supervision of Mr McCaudless and its Electrical Engineer, George H. Dann.

Condition: it is in good condition after its refurbishment in 1986.

Comparative examples

We are not aware of any similar structures.

Statement of Significance

Historic significance

The obelisk has strong local significance as a recognition in 1938 of the community's sense of identity with its place in the history of municipal electric street lighting and the application of electricity for community purposes.

Artistic or aesthetic significance

The obelisk is a fine example of commemorative architecture from the 1930s.

Scientific or research significance
NA

Social or spiritual significance
The obelisk's place in the community's affections was demonstrated by support for it in the face of recent arguments for its demolition.

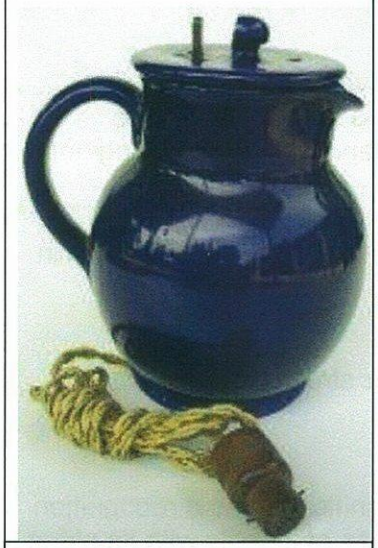
Comparative criteria

Provenance
The history of the obelisk's design and construction is well established.

Rarity or representativeness
Like Tamworth's role in the establishment of municipal electric street lighting in Australia, the obelisk is unique. While war memorials are a familiar feature of Australian country towns, we are not aware of memorials to technological achievement of this kind.

Condition or completeness
The obelisk is complete and in good condition.

Interpretive capacity
The obelisk represents a form of interpretation and commemoration, but is itself capable of interpretation as a rare example of civic commemoration of technological achievement, and as an example of commemorative design from the 1930s.



Rapid electric jug, 1921 patent

Rapid electric jug, patent 1921

Brief description

Blue ceramic jug, milk jug shape, with two pin electrical plug-in lid, which fits over two pins inside the jug, connected to a bare element at the bottom of the jug.

History and provenance

Provenance of this particular item is not known, though it is likely to have come from the Tamworth district, like most of the Museum collection. The Rapid jug was manufactured by the Australian General Electric company under a 1921 patent.

The first electric kettle was exhibited at the Chicago Exhibition of 1893 by the Carpenter Electric Company, with a British version being made by Crompton and Co., makers of the dynamos that powered the Tamworth Power Station in 1888. Electric kettles heated water through an element in a separate compartment in the base. The use of a bare element in a jug rather than a kettle is believed to have been an Australian concept, and the Rapid jug is an early example of its application.

Community recollections

There is no provenance for this item, so no community recollections of it are available.

1921 patent Rapid electric jug showing connection system preventing access to the water when plugged in.

Context of use

Likewise, it is not known where this item was used, though it is believed to have come from the Tamworth district.

Type of material, manufacture and condition

Material: stoneware jug and lid with metal element and fittings

Manufacture: the Australian General Electric Company, patented in 1921

Condition: excellent.

Comparative examples

The Powerhouse Museum has a similar item (87/16), though its manufacturing details are not specified on its website. A similar item has also been seen for sale on eBay.

Statement of Significance

Historic significance

The jug is historically significant in a technical sense as an early example of an Australian development of the concept of the electric kettle, not used in any other country, through the use of a bare element in a ceramic jug, rather than an element in a separate compartment in a metal kettle.

Artistic or aesthetic significance

The jug shape is unaltered from non-electric jugs – the item's appearance is that of a standard milk jug. In this

sense, it is an example of transitional design from non-electric jugs to the electric variety.

Scientific or research significance
The jug is interesting as an early example of an Australian design concept, and as an example of transitional design.

Social or spiritual significance
NA

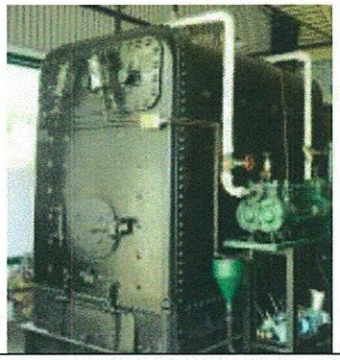
Comparative criteria

Provenance
Not known.

Rarity or representativeness
The jug is representative of the early application of electricity in a jug for the heating of liquid.

Condition or completeness
The jug is in excellent condition.

Interpretive capacity
The jug can be interpreted as an early example of the uniquely Australian development of the electric kettle concept to that of an electric jug using a bare element, and as an example of transitional design, from the non-electric jug to the electric variety.



Mort's Dock boiler, 1924

Mort's Dock boiler, 1924

Brief description

The boiler is a purpose-designed locomotive style boiler of heavy steel plate riveted construction with a barrel 2.7m long and 1.1m in diameter, with 52 63mm fire tubes. The boiler is designed for burning wood and for a working pressure of 150lbs per square inch and a nominal 40hp.

History and provenance

The boiler was built by Mort's Dock Engineering, Balmain, in 1924 for the NSW Department of Public Works. The Museum believes it was one of two 40 nominal hp boilers used in the construction of locks on the Murray/Darling river system, however its provenance after it was built is not documented until its purchase from Todd Watson of

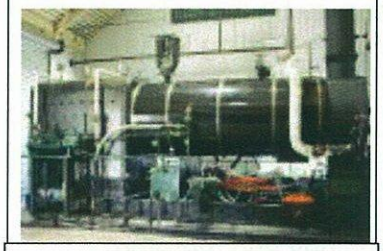
Echuca, by Richard Bromhead of Mannum, South Australia in 1979. It was purchased from Mr Bromhead for the Museum by the Peel-Cunningham County Council in 1987 to power the Fowler engines. After extensive restoration work by Museum volunteers it was licensed for use in time for the opening of the Museum in November 1988.

Community recollections

The engine is well known in the community because of the work done on it by Museum volunteers.

Context of use

See History and provenance, above



Mort's Dock boiler, 1924, and Fowler steam engine, 1896

Type of material, manufacture and condition

Type of material: largely steel plate). The boiler is a normal steam boiler in terms of its constituent materials.

Manufacture: see History and provenance above.

Condition: the boiler has been fully restored to working order

Comparative examples

The Museum is not aware of other comparable boilers from the Mort's Dock engineering works.

Statement of Significance

Historic significance

The boiler is one of the few remaining products of the Mort's Dock Engineering Company, established in 1855. Mort's Dock became the largest private shipyard in Australia and was in continuous operation until its closure in 1959. The boiler is also a good example of riveted boiler construction from just before riveted joints were superseded by welded joints.

Artistic or aesthetic significance

NA

Scientific or research significance

See Historic significance, above.

Social or spiritual significance

The boiler is well known in the Tamworth community for the work done by Museum volunteers to make it operational.

Comparative criteria

Provenance

The boiler is known to have been made by the Mort's Dock Engineering Company in 1924. Its history after its construction is not documented until its purchase in 1979 by Mr Bromhead.

Rarity or representativeness

The Museum believes the boiler may be the only extant example of those used in the Murray-Darling locks.

Condition or completeness

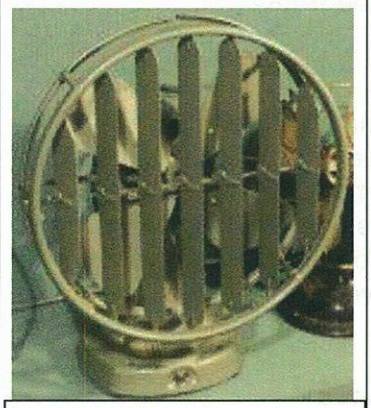
The boiler is fully restored and in working condition.

Interpretive capacity

The boiler powers the Fowler engines and therefore contributes to the interpretation of the story of the 1888 power station. It is also an example of late riveted boiler construction, and of the work of the Mort's Dock Engineering Company.

Webley and Scott oscillating louvre fan

Brief description



The "Webley" oscillating louvre fan, 1950

This is an oscillating fan with 12 inch face, four fan blades and seven louvres, powered by a 48W, 0.35 amp shaded pole motor (four poles) with a squirrel cage rotor as commonly used in domestic appliances of the period. The oscillating and louvre mechanisms are driven from the motor shaft and direct the air flow. Bearings are housed in brass sleeves for quiet operation. There is a die-cast yoke and heavy die-cast base with on/off switch at the front and oscillating control lever at the back. The fan has not been repainted and its colour is the original brownish cream. Maker's details appear on the rear of the motor housing including the model name "The Webley Fan."

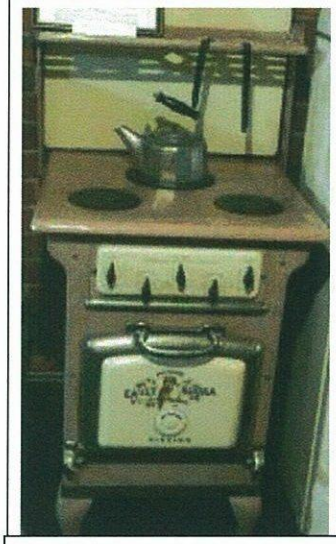
History and provenance

The "Webley" fan was made by Webley and Scott of Birmingham, UK in about 1950. It was purchased by

	Harold and Doreen O'Keefe and used in their general convenience store on Tamworth's Five-ways, North Tamworth and then in their home in Marnola Crescent. The fan was donated to the Powerstation Museum by their son Peter in 2005, after 55 years of use by one Tamworth family. ***Community recollections*** The fan was on public display in the O'Keefes's shop for many years and would be remembered by their customers. ***Context of use*** Fans were the first motor driven electrical appliances. They were relatively inexpensive to make, used little power and were reliable. The Webley and Scott oscillating fan was manufactured for the top end of the market, or for commercial use, and relatively complex, with its oscillation and louvre mechanisms. ***Type of material, manufacture and condition*** *Type of material*: primarily alumunium alloy die castings with steel blades and louvers. *Manufacture*: Webley and Scott, Birmingham, UK, c.1950. *Condition*: the item is in excellent condition. Some restoration work has been done comprising replacement of perished rubber elements and a bakelite plug. The fan has been cleaned, oiled and greased and is in working order. ***Comparative examples*** Webley and Scott made firearms from 1834 to 1979, when they moved to concentrate on air pistols and air rifles. They have now moved back into the making of firearms in the form of shotguns. They are not known for making domestic appliances. We have found two other examples, one owned by collector Jim Dunn (featured in a recent Collectors program on the ABC) and one featured in a YouTube video (http://www.youtube.com/watch?v=G7tB6c2ftll) of a working example, whose owner notes the lack of information about these fans.

	Statement of Significance **Historic significance** The fan has some national significance as a rare example of a fan made by Webley and Scott who are not known as making anything other than firearms. It has strong local significance because of its documented 55 years of local use by the O'Keefe family. **Artistic or aesthetic significance** The fan is an example of high quality design and English precision production engineering **Scientific or research significance** The fan may have research significance as a rare example of a fan made by Webley and Scott, who are not generally recorded as makers of anything other than firearms. **Social or spiritual significance** The strong local provenance of the fan and its association with the O'Keefe family and their store gives the fan social significance for the Tamworth community. ***Comparative criteria*** **Provenance** The fan has strong local provenance. **Rarity or representativeness** Fans by Webley and Scott are rare. The fan also has some representative significance as an example of high-end appliance manufacture in the 1950s and evidence of a market for such items. **Condition or completeness** The fan is in excellent condition, complete and working. **Interpretive capacity** The fan has interpretive value for its local associations, for its rarity as a Webley and Scott fan, and for its documentation of the market for high-end appliances in the 1950s.

Goblin Teasmade, c1955 The Teasmade was first patented in 1932.



Metters Early Kooka three hotplate electric stove, c.1935

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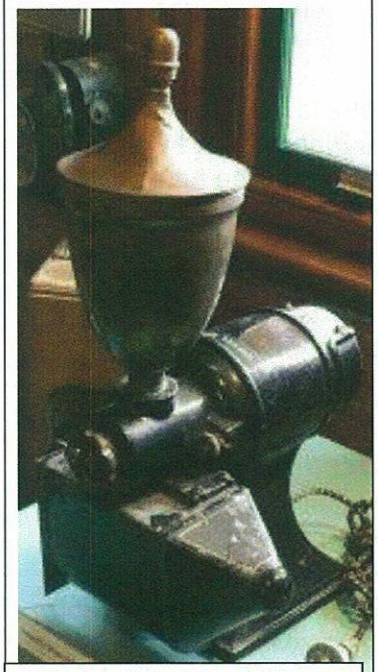
Electric kettle, copper, c.1920



Diamant coffee grinder, c.1940

of the Tamworth Powerstation Museum (and the first National School)", nd

Tamworth Powerstation Museum Collection Management Policy

Tamworth Regional Council, Powerstation Museum Business Plan, 2011 - 2013

Draft significance statements by Museum volunteers on:

- Kapp-Crompton instruments
- Fowler engine no. 7846
- Washing machine collection
- Mort's Dock boiler
- Fowler boiler
- Belliss and Morcom engine
- The obelisk
- Replica gold key
- Letter of appointment, O.W. Brain
- Borough Clerk's letter book
- Fowler engine no. 7586
- Webley and Scott oscillating louvre fan

Internet sources

Where possible, information supplied was verified or amplified by reference to internet sources. Key sites included:

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http://www.powerhousemuseum.com/

Museum Victoria
http://museumvictoria.com.au/

National Library of Australia
http://www.nla.gov.au/

Visit Tamworth
http://www.visittamworth.com/

ABC – local museums
http://www.abc.net.au/rn/museums/2009/

Edison hot plate with original flex and wooden plug 1920

Queensland Energy Museum
http://www.energymuseum.com.au/

Waddamana Power Station Museum
http://www.engineersaustralia.org.au/shadomx/apps/fms/fmsdownload.cfm?file_uuid=F5352C6B-E928-7611-E5ED-CE1F713BE78F&siteName=ieaust

ELMA archives
http://libguides.newcastle.edu.au/content.php?pid=72577

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Museum of Science and Industry, Manchester (electric kettles)
http://www.mosi.org.uk/media/33871691/electrickettles.pdf

YouTube (Webley and Scott fan)
http://www.youtube.com/watch?v=G7tB6c2ftll