The Fincham way

by John Hargraves

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This is an organbuilder's study of some tonal, constructional and technical features of the work of George Fincham (1828 - 1910) and how these have impacted on the quality, appreciation and survival of his work.

George Fincham founded the most significant organbuilding enterprise in the colonial era of Australia, an enterprise that has prospered and survived for 130 years through four succeeding generations of his family.

The writer has worked on or inspected many Fincham, Fincham & Hobday, and Hobday organs across Australia and New Zealand during his 30-year organ building career, four years as an apprentice of John A. Lee of Feilding (North Island of New Zealand) ex Rushworth & Dreaper, and the remainder as a Director of the South Island Organ Company Ltd. of Timaru, New Zealand.

Having been involved in the formation of a new organbuilding enterprise in New Zealand and having had a principal part in its development over the last 26 years, the writer strongly identifies with many of the problems with which Fincham had to cope, and has developed a deep admiration for his work and achievement, not because his organs are comparable in all respects with the best European work of the time, but because they are essentially well crafted and artistically satisfying musical instruments, and are exciting as the first real flowering of the organbuilder's art to come out of Australia.

The principal sources of information are the organs of Church of All Nations (formerly Carlton Methodist) (1877-1886) restored 1992, Royal Victorian Institute for the Blind, Prahran (1868 - 1891 - 1953) rebuilt 1990 at Paton Memorial Church, Deepdene 1990), St Mary Star of the Sea, West Melbourne (1900) restored 1993, Scots' Church, Melbourne (1874 - 1882 - 1910 - 1959) revoiced 1992, St Mary's, Nelson (1896) rebuilt 1985, and St Joseph's Cathedral, Dunedin (1866) rebuilt 1976. Relevant historical information from the Enid Matthews collection of papers at the LaTrobe Library will be included where possible.

Fincham's work in New Zealand is still quite commonly found. He supplied four new instruments to New Zealand, namely St Joseph's Cathedral, Dunedin 1866, St Paul's Presbyterian, Wanganui 1894, Trinity Presbyterian, Nelson 1895, and St Mary's Catholic, Nelson 1896. There are substantial rebuilds at

St Mark's, Wellington 1895, St Michael and all Angels, Christchurch 1896, and St Mary's, New Plymouth 1896.

He supplied pipework to New Zealand organbuilders during the 70s and 80s, including Christchurch builders Edgar Jenkins, (e.g. St John's, Latimer Square 1880; Holy Trinity, Avonside, 1881; and St Mary's, Manchester Street 1885), Christopher Farrell, (e.g. St James, Riccarton), Frederick Sandford 1884, (St Mark's, Opawa); and his brother George Sandford during his period in Sydney. Fincham's partner Arthur Hobday, who was the head voicer and entrepreneur for the firm, spent time cleaning, revoicing, enlarging, and overhauling New Zealand organs for the partnership during the Australian recession of the 90s, during which time Fincham wrote that the firm had more work in New Zealand than in Victoria. Organs receiving this attention included the Bishop organ in Nelson Methodist, the Lewis organ in St Paul's Cathedral, Wellington, and the Hill organ in Christchurch Cathedral.

Many connections can be seen in Arthur Hobday's own work in New Zealand after the dissolution of the partnership, in fact it is easier to note the differences. The distinguishing features of his organs are firstly in the upper case design which almost always avoided exposed timberwork above the impost rail, which was always on one level. Front pipes were invariably winded from their own pneumatic chests, very frequently showing exposed face boards fastened with heavy gauge round-head screws. Tonally the string stops are the distinguishing feature, as they quickly became narrowed to Viole d'Orchestre scale and tone, otherwise the differences are mostly of appearance as the metal pipes were imported from Palmer's of London, quite often of plain polished metal for reeds and principals, but always spotted metal for strings. New Zealand timbers, particularly Kauri were used for pipes, soundboards and casework, but Tasmanian Blackwood and Silky Oak were retained for console recesses and feature casework.

Hobday quotes George Fincham as often saying to him "*you need the heart of a bullock to be an organbuilder*" and this strength clearly comes through in Fincham's work. Fincham came to Victoria in 1852 after a seven year apprenticeship with Henry Bevington and three years as a foreman with Bishop in London. He couldn't have had a better training as Bevington's organs like Fincham's have stood up to the rigours of the colonial environment better than most other imported organs, due in particular to the quality of their soundboards and pipework.

The traits that were essential to his success were his sound training, broad range of skills, courage and clear sense of purpose in emigrating. He refused to be daunted by the lack of response to his first initiatives, (Melbourne had few organs and was in the grip of gold fever on his arrival). He had bounding energy and total commitment to his vision. He bought land, stocking materials and building substantial workshop facilities, that clearly demonstrated his commitment to producing quality work with maximum local input, and quickly found other money-making work for the 12 years before enough organbuilding was available to sustain him. He had a great ability to capitalise on the difficulties and weaknesses of his competitors, and usually had the last word after their financial, technical or climatic failures.

He was able to use State tariff protection from 1865 to restrict importation of organs and from 1875 even the importation of parts. As the firm grew Fincham concentrated his energies on directing the organbuilding side of the business as he was successful in training apprentices capable of eventually running his voicing, pipemaking, office, and sales departments, branches or their own businesses, e.g. Arthur Hobday, Josiah Dodd, Frederick Taylor, Leslie Fincham, Alex Ground, and George Collings. He was the first Australian organbuilder successfully to export organs interstate and overseas over a sustained period. His organs quickly developed a noteworthy and distinctive tonal and aesthetic style that, although showing response to overseas developments from time to time, always contained the silver thread of continuity.

PRINCIPAL FEATURES OF HIS WORK: 1864 - 1910

Pipework:

The quality of Fincham's pipework was one of the most remarkable features of his organs right from the start. His early metal pipes were rather thin and the Principals had narrow mouths.

In the case of St Joseph's, Dunedin (1866) they were made of black metal, which he soon abandoned in favour of spotted metal. The pipework for the 1868 part of the Prahran Blind Institute organ was of similar construction but the metal was spotted, and the pipes including the fronts are still in perfect condition in the Great of the rebuilt organ at Paton Memorial Church, Deepdene.

The wooden pipes of this period are very similar to Bevington's and display in the stopped basses the same characteristic large scale and low cut-up quintyness. The inscriptions on these early pipes are in quite a different hand to those commonly found on his spotted metal pipes from the mid 70s through to the middle of the first decade of the 20th century. This thirty year period represents the high point of Fincham's work and the metal pipework from it is instantly recognisable in appearance, from the distinctive look of the spotted metal which is of very high quality, (he successfully exhibited sheets of it in several international exhibitions) characteristic inscription pattern, and other details such as the soldered caps and large tuning ears of the metal Gedackts and Rohr Flutes in the manner of Bevington.

(These although time consuming to voice, successfully avoid the tuning problems common to metal flutes with cork stoppers. This is an example of his commitment to making organs that could cope with the climate).

The cut-up of the flutes gradually increased to a considerable height during this time as the earlier reediness of the low cut-up stopped diapasons became unpopular in his quest for more power without losing purity of tone. Fincham's Clarabellas and four foot open wood Flutes often have a surprising fullness and vitality such as in the Blind Institute Great (1868), Carlton Methodist Great (1877), and on all three manuals of St Mary's, West Melbourne (1900). It is interesting to note that he considerably increased the cut-up and altered the effect of Mackenzie's Flutes in Scots' Church in 1882. We have recently

restored these to the original cut-ups to recapture the original character of the organ and have found beautiful though more delicate tone.

He was a master of string voicing although slow to adopt the Lewis type of bearded Gamba and Celeste which did not appear until the 1890s. His favourite stop was probably the Keraulophon, (a loud slotted Dulciana) as in the swell of Carlton Methodist (1886).

His Principal choruses were scaled and voiced in the typical English manner, often quite bold but not hard edged or overly harmonically developed. The upperwork was considerably smaller in scale than the unisons, and the mixtures frequently carried a Tierce rank right through the compass. His Open Diapason 8' stops were of full tone but often became rather fluty by the 1890s due to the higher cut-up on low pressure.

Fincham's reed stops sound very distinctive and fine when in good condition but have two unusual and problematic features. The first is that the tongues are made of soft brass instead of the usual half-hard or spring brass, so the curve is easily and quickly lost if they are tuned or handled carelessly. The second is that the unenclosed open resonator stops such as Trumpets and Clarions are usually fitted with individual dust caps made of circles of zinc soldered over the top in an arch. These have a detrimental effect on the tone and tuning stability of the pipes and are not very effective as dust protectors.

It is hard to understand why he did not hood the pipes in the usual English manner. We considered it justifiable to remove the caps from the Great reeds at Scots' and St Mary's, West Melbourne, and just used a suspended plastic sheet to keep the dust out.

His Pedal Open Wood stops are surprisingly small in scale and usually lacking in tuning devices, a likely sign of rushed installation or financial austerity. Nevertheless it is apparent that when times were tough the last thing to be compromised on was the quality of the pipes.

By 1910 pipes and voicing had taken on a significant change of style and appearance, perhaps influenced by the firm's involvement with Ingram and the rebuilding of the Melbourne Town Hall in 1906. Some pipes from this era are made of rough-cast plain metal.

Slider Soundboards:

Fincham took particular pride in the quality of his slider soundboards and was quick to make the most out of faults in those of his competitors. He was careful with his timber selection and seasoning, and devised a successful and simple way of avoiding shrinkage and lifting problems associated with the tables. This involved matching the size of the table boards to that of the corresponding upperboards and separating them with a strip of leather instead of using wider boards and butting them directly.

This greatly relieved the pressure of shrinkage across the grain, which frequently caused ordinary soundboards to crack in hot dry weather. It should not be thought that the problems with imported soundboards or other timber

organ parts were necessarily the result of improper seasoning or poor timber quality. The English organbuilders could not control the high residual moisture content of the timber due to the dampness of their climate, and the high humidity of the long sea voyage to the colonies. It was the combination of dryness and heat that was so quickly damaging, to even the best quality work imported from a place of high humidity or dampness.

Fincham's soundboards like those of most 19th century English organbuilders were constructed on a "caul" which is a large, very stable, flat wooden bench-top on heavy trestles.

The caul method of construction is so seldom described in organ literature as to warrant explanation here.

First the boards for the table are cut to the full length of the slides, planed flat on one face and true on both edges, then cramped together and screwed face down onto the caul, positioned slightly to overhang one side of it.

The upper side of the table is then hand planed flat after removal of the cramps. The position of the channel bars is marked out on the table from the previously planned "length rod", and the prepared and glue-sized bars are rubbed down onto the table to line up with the side overhanging the caul. (The grain direction of the timber must be marked on all the table boards, channel bars, filling-in pieces, slides and bearers, and coordinated before assembly to ensure a clean finish after planing).

Next the prepared and glue-sized filling-in pieces are individually fitted and glued to close the ends of the bar channels. Another two sets of filling-in pieces are usually fitted and glued underneath the position of the windbar and the pallet tails. The grid is then flooded out with glue and dried for as long as possible. The pallet side of the grid is planed flat, the windbar is screwed to it and the caul with soundboard attached is turned up 90 degrees so that the overhanging edge of the grid can also be planed flat for the cheek to be screwed and glued to it. The grid is then unscrewed from the caul so the other edge can be planed and its cheek fitted. The end cheeks that complete the well are then made with a housed joint to fit around the ends of the windbar, and screwed and glued to the grid.

The well is patched to the grid with glued leather, and the bottom of the well cleaned up ready for fitting the bottom board. The soundboard is then turned right way up and the table top planed flat ready for positioning according to the "cross rod" and pinning down of the slides and bearers with cobblers chips. They are first planed flat on the side facing the table and true on both edges. The top side of the slides and bearers are then planed flat while they are pinned down on the table.

The upperboards, rackboards and veneers (covers for wind channelling in the upperboards) are similarly planed up and put down with temporary cobblers chips, ready for setting out the borings for the pipes on the rackboard according to the details from the length and cross rods. The borings are made, pricking the appropriately sized drill bit just through each layer, until all layers have been marked and bored to the correct holes size.

Fincham used red hot burning irons to finally seal and tidy the borings which were often bored at quite an angle to avoid extra channelling in the upperboards; also to countersink the pipe tip holes and exactly fit the rackboard holes. The table is then cut to length and the ends of the soundboard cleaned up. The table top and upperboards are grooved with bleed channels and blackleaded. The bearers are finally pinned down, the slide widths reduced sufficiently to give a smooth running fit, and stop off register dowels are inserted through each end of the slide into the table and the slide slotted to allow a running movement of slightly more than the diameter of the largest boring.

The slides are blackleaded and the bearers covered with paper of a thickness that will just maintain free movement of the slide when the upperboard screws are firmly screwed down. The upperboard screws are normally set a half or quarter turn back from firm when the soundboard is finally set up in the organ but this is a matter for experienced judgment to determine.

Finally the soundboard is polished with shellac, leathered and canvassed, and fitted out with the action parts.

Other features of Fincham's soundboards were that the bottom board of the well was framed with removable panels. This unusual feature gave added stability and provided excellent maintenance access to the pallets and springs. The pulldown holes in the bottom board were bushed with individual brass discs instead of the usual continuous brass strip.

There are some unappealing features of Fincham's soundboard design.

The lack of a central dovetailed strut to stabilise the position of the bottom board in relation to the grid meant reliance on full length face boards which do not make for easy maintenance access.

His system of rackboard support makes it necessary to remove all the pipes to refit individual upperboards because instead of the usual turned rack pillars, he used long boards that straddled the full width of the soundboard, dowelled into the upperboards which were thus trapped. His reed stays were never fixed to the soundboard and usually caused some pipes near the free end eventually to collapse from excess stay movement.

Carlton Methodist:

The slides of the Great were of New Zealand Kauri, two so badly warped that they had to be replaced during the restoration, whilst those of the Swell were of mahogany and in good condition. The original construction method was that paper was temporarily put under the slides before they were planed up. This system is problematic if "runnings" prove the slide clearance later to be excessive (as in this case) because no adjustment is possible. During the restoration the slides were replaned using the conventional method of permanently packing the bearers with paper.

The pallets of the Great at Carlton were covered with four layers of leather, the bottom layer being 3/16" smaller than the diameter of the pallet all the way

round. The Swell pallets were covered with three layers of leather (two layers is normal). On the Great the upperboard screws were pulling the table away from the bars because the screws were too short to reach them. The borings were unusual in that they were the same size through the upperboard, slide and table instead of being 1/8" smaller at the pipe tip as in conventional soundboards.

Pedal Tracker Chests:

The Pedal chest at Carlton reveals a number of interesting features. Firstly, the chest which is of the normal barred type, sits right on the floor, there being no ground frame, and has consequently been water damaged several times when the floor has been flooded. There is no face board, so it is necessary to remove all the pipes and disconnect the action and windtrunk, turn the chest over and unscrew the bottom board if any maintenance is required. The pulldowns enter from the side. Inside is a subsidiary rollerboard for the bottom four notes, and short rectangular pallets fitted with 2 3/4" arms at 90 degrees to which the pulldowns are attached at 90 degrees. The pallet springs originally had no coil and only one leg, which rubbed on the pallet. These were clearly unsatisfactory and now have coils.

Hobday was still using this design at St John's, Greymouth (1897) though with important improvements, such as normal pallet springs and a face board. The trackers run under the reservoir to the console through a rollerboard on the floor, but the reservoir is too low for maintenance access. The knee panel is fixed, doubling as the pedal coupling rollerboard frame. Again, access is unsatisfactory.

Winding:

Fincham's 19th century organs were winded with conventional large double-rise reservoirs, often with a subsidiary single or double-rise one for the Swell. St Joseph's Cathedral, Dunedin (1866) and St Mary's, West Melbourne had subsidiary double-rise reservoirs for the Swell, forming the roof of the swell box, an occasional feature of Fincham organs. Carlton Methodist has one double-rise with feeder bellows for the whole organ.

St Mary's, Nelson (1896) had one double-rise with feeder bellows for the action and Pedal, and one subsidiary single-rise reservoir for the Swell and Great.

St Mary's, West Melbourne (1900) has three double-rise reservoirs, the main one 12' x 8', for the action and Pedal, originally having four vertical feeder bellows connected to a crankshaft operated at first by an hydraulic engine, and soon afterwards by an electric motor because the water pressure was unsatisfactory. Unfortunately this feeder equipment has since been completely removed and only the pressure gauge and water pipe is left. The first subsidiary one feeds the Great and Choir, and the second subsidiary one the Swell.

Kangaroo skins were often used for the bellows leatherwork instead of sheepskins as they were considered to last twice as long, although they were much slower to work with.

The inside of Fincham's reservoirs were extensively patched with scraps of leather, the inside of Carlton Methodist's being completely covered in this way. The reservoir tops were generally weighted with rocks, usually sandstone blocks as at West Melbourne but sometimes with marble scraps as at Carlton Methodist. The later organs of the partnership including those exported to New Zealand, by contrast, had proper cast iron bellows weights inscribed F & H.

By 1910 as electric blowing became more common, the proportion of single-rise reservoirs increased and their size decreased as their role became more that of pressure regulators than storage compartments. By 1930 the firm had changed to very small sprung single-rise ones of no more than 3' square. At St Patrick's, Ballarat (1930) the Great reservoir is only 3' x 1'6" and not surprisingly has a considerable pressure drop when large combinations are used.

The large double-rise reservoirs of Fincham's 19th century organs impart a quality of musical vitality to the music, as their large mass encourages a pulse rate of about the speed of a good tremulant. Often this flexibility was too much even for Victorian taste and concussion bellows were fitted by Fincham's, though often curiously at the centre of the windtrunk which being at a node point of the pressure wave, merely doubled the speed of the pulse. (Concussions fitted at a node point are relatively ineffective). At Carlton Methodist (1886) the centrally mounted swell concussion is disconnected because the effect is considered to be unmusical.

Concussions have recently been fitted at St Mary's, West Melbourne (1900) for the first time because the former extreme wind flexibility, although musically expressive in skilled hands, made the organ quite hard to handle for much of the repertoire. The reason for their omission can only be conjectured, but was probably economic.

Wind control valves for those reservoirs needing them were simply a large hinged pallet inside the bottom board, held closed against the end of the windtrunk by a lever, operated by a cord attached to the top of the reservoir. The system works well in normal circumstances but is prone to warping or cord failure causing havoc to the tuning or major damage to the reservoir. The main reservoir at St Mary's was nearly wrecked hours before the recent re-dedication service because the control valve warped from the heat generated by the blower, which had been running for very long periods in the previous weeks while the organ was being tested and tonally finished. Hobday still used these valves in New Zealand until his death in 1912, but they have now all virtually disappeared due to the risks of malfunction.

Fincham's windtrunking was usually conventional but sometimes as at St Mary's, West Melbourne displayed unusual features. The wooden trunking here is particularly large, no doubt because of the long distances and large size of the organ (1' 7" x 6" for the main trunks), and is made of tongue and groove matched lining running lengthwise, the joints being patched with leather on the inside.

Pneumatic Action:

Fincham's ventures into pneumatic action are particularly interesting. He strongly defended his ability to build the pneumatic lever in a letter to St Patrick's Cathedral in 1879, and was easily ruffled by any suggestion that he commanded anything less than a complete up to date manufactory. In a letter dated 18 August 1879 to A. Landergan of New Zealand he stated "*We make every portion of the instrument except the drawknobs (turned by Messrs. Alcock & Co.), the engraving of same (by Rosalier of Swanston Street), and keyboards which we prepare in the factory and send to Stevens of South Yarra for laying and polishing of the ivories*".

Apparently none of Fincham's Barker lever actions survive although he certainly made them e.g. Scots' Church (1882), Exhibition Organ (1880) and they worked well from contemporary accounts.

What has survived shows Fincham in a marathon struggle to master the new medium, suffering the setbacks of comparative isolation, the almost unbearable expense of implementing fundamentally new ideas, technology and materials during the economic austerity of the 1890s, and the frustration of reliably generating enough wind for the greatly increased requirements.

An early idea of Fincham's using rubberised silk instead of fine leather for the pneumatic motors quickly met disaster and had to be replaced in a very short time when the material became porous in the folds.

Little of the original pneumatic action at St Martin's, Hawksburn (1887) (Fincham's first totally pneumatic organ) has survived although it remained pneumatic until very recently, using a later system of Leslie Fincham's similar to that in St Patrick's Cathedral, Ballarat.

The three new organs that Fincham exported to New Zealand in the 1890s all had pneumatic action: St Paul's Presbyterian, Wanganui (1894), Trinity Presbyterian, Nelson (1895) and St Mary's Catholic, Nelson (1896). They also had sliderless ventil soundboards which, although hailed as having perfect responsiveness and quietness in contemporary accounts, were designed in a way that made maintenance a nightmare in later years.

The only examples of Fincham's ventil soundboard design to have survived appear to be the Great and Swell soundboards at Carngham Presbyterian (1894), and the Pedal at St Mary's, West Melbourne. In New Zealand they were replaced at Wanganui by Croft of Auckland in 1906 when the organ was rebuilt and enlarged; the Trinity, Nelson organ was broken up in 1963; the St Mary's, Nelson organ was rebuilt with new tracker soundboards in 1985.

One problem with these chests was that the individual pallets instead of being held up by springs, relied on a higher pressure being first admitted to their pneumatic motors than the pipe wind surrounding them in the ventil pressure chamber.

Leakage in any one motor caused all pipes of that particular keyline to cypher. Finding the faulty motor necessitated removal of all the pipes from the soundboard as the only access was from the top through full length upperboards. Worse still the pallets and register rails had to be removed to

gain access to the motors and the faulty motor board prised off the bottom board without the benefit of the layer of paper or leather conventionally used to facilitate this process. It is small wonder that so little work of this design has survived, although it worked perfectly to begin with.

At St Mary's, West Melbourne the design had one important modification. Fincham had been forced to capitulate on his two pressure no springs theory, the Pedal chest having one pressure and individual pallet springs. Even so maintenance access was still only by removal of the pipes with all other attendant difficulties, so it was hardly surprising that at the time of the restoration hardly any of it was still working. Although we know from the letters, that he received valuable information from his friend Alfred Hunter in London and from other sources, his pneumatic work shows much independent enquiry whether from stubborn pride, isolation or inventive necessity is hard to determine.

St Mary's, West Melbourne and St Joseph's, Warrnambool (1893) are the largest surviving examples of his pneumatic organs and reveal much of his thinking. He was obviously very preoccupied with achieving a perfectly responsive action and unsure of the parameters to achieve this. This is clearly seen in his exclusive use of large bore tubing, in fact quite unnecessary and a highly expensive decision, resulting in the huge and difficult to maintain consoles.

At St Mary's the soundboard underactions are almost at ground level and connect to the elevated soundboards by 6' 0'' long trackers to keep the tube runs as short as possible. At St Joseph's, pneumatic relays have been incorporated half way along the tube run to maintain efficiency of the action response. Both systems work completely on the pressure principle. The touchboxes at the consoles have double exhaust valves, and Fincham's patent automatic exhaust system was originally fitted at the soundboard end of the tube runs, on the primary purse rail of the underactions.

This comprises a subsidiary purse operated gravity valve that exhausts each tube line at rest, and seals it by inflation when a note is played, to ensure perfect repetition. These have subsequently been eliminated at St Joseph's to the great detriment of the action release, but can still be seen at St Mary's on the Pedal soundboard underaction.

The original primary stage of the manual soundboard underactions at St Mary's were replaced after the second world war when the underactions were lifted from the floor and attached under the soundboards, thus eliminating the trackers. (The original configuration except for the primary action, was reconstructed in the restoration). The primary action is a later system of Fincham's, also used by Hobday in all his New Zealand pneumatic organs, comprising a pill box motor in the wind connected to an external double exhaust valve for each note. The motor is internally pressurised for the on movement, overcoming the resistance of the wind surrounding it until the key is released, whereupon the surrounding pressure reverses the process. The tube lines are exhausted at the underaction end by means of a bleed hole in each tube, adjusted to a nicety to achieve the optimum attack and repetition of the action.

Similar overkill to the tube size is seen in the underaction power motors which are excessively large for the work required, and again in the fact that all the soundboard pallets are split to lighten the pluck as if it was a tracker organ.

The motors are so powerful that they are prone to pulling themselves off their mounting boards. The pneumatic stop-action motors that pull the sliders on are at the other extreme and their power is exactly right for the work providing that the sliders always run freely; a tall order that has often in years past left hapless organists or their assistants resorting to prodding reluctant sliders with a long stick to coax the desired tones from the instrument.

Fincham's piston mechanism has interesting features, the first being that it allowed of very little adjustment to the combinations once installed; the combinations were predetermined and manufactured into it simply because there was insufficient space for more possibilities. This again was a negative result of using the large bore tubing. The principle of the design, which utilised individual double acting diaphragms for each drawstop was right up to the minute and works very well. (Norman & Beard used the same idea at Wellington Town Hall in 1906 although with normal size tubing and a fully adjustable tubing switchboard).

Fincham's pneumatic valve design in some organs including St Mary's was quite peculiar, in that they were solid discs of wood leathered and glued on to lengths of 1/4" dowel which were glued into the pneumatic motors. Once made they were non-adjustable and in the case of external valves had to be broken to get the chests apart. This was the cause of such horrendous maintenance problems at St Mary's that the remaining ones were all changed during the restoration to conventional tapped metal wires with oscillating felt and leather valves held by leather buttons and cloths.

St Joseph's surprisingly still has Fincham's pneumatically operated swell shutters though not the original balanced iron lever swell pedal, that was hailed in the Warrnambool *Star* of 1893 as a great advance and cure for the objectionable practise of "*left winging*" on the pedals.

Each shutter has its own pneumatic motor, all of which are separately fed from a slide valve connected to the swell pedal in the console.

St Mary's, West Melbourne:

Fincham suffered a paralytic stroke during the construction of this organ, and the enormous strain he was under at the time can be well appreciated, considering that the firm was very short of work and relationships with his bankers were strained almost to breaking point. He had to erect and finish the organ while the building was being completed, trying to tune and regulate the pipes without Hobday amidst the hammering of flooring contractors, insufficient water pressure to raise the wind properly and heat damage from the West window which at that time was glazed with clear glass. At the last minute he had to almost completely dismantle the console and releather all the flapper chests because the leather curled up in the heat.

The tension was apparent in many details of the organ. On the one hand the grand vision, of the decorative case, full specification, quality pipework, well crafted soundboards and elegant blackwood console, in a beautiful architectural and acoustic setting. On the other a sense of panic shown in the lack of design provision for maintenance, lack of fixing down of the parts to the building frame, the patching of the windtrunking together, the untidy strapping of the tubing to the case instead of running it in trays, the rough workmanship in the case pipe chests and other actions, the lack of provision for ladders and passageways, and the very uneven regulation of the pipework.

A letter by Fincham dated 30 January 1900 gives some clue: "*...tuning and regulating 5pm - 8pm yesterday. All had to be done again this morning. I sat on the stool with the sun's rays at my back till I was pretty near sick. I made up my mind that I would not do any more till the window is blinded*".

During the restoration which itself took nearly 10,000 hours, the writer repeatedly had the conviction of finishing the organ for the first time, and had to envisage its intended character from hints suggested by the instrument against a background knowledge of Fincham's work elsewhere.

Let us salute organbuilder George Fincham for the great heritage he has left us. He had that wonderful ability to focus on what was important, often in the face of great adversity, yet survive to fight another campaign.

The challenge for us who have inherited this legacy is to find this same focus, in the struggle to preserve his work, and more fully realise the vision which sometimes harsh circumstance prevented him from so doing.
