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TOSA NEWS

The Official Publication of the Theatre Organ Society
of Australia, N.S.W. Division, Inc.
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TO ALL MEMBERS



*From the
President and Committee*

FREE CONCERT
Sunday 31st. January at 2.00pm.
Marrickville Town Hall

T.O.S.A. SPECTACULAR
TONY FENELON and RAY THORNLEY
in concert

CAMPSIE ORION CENTRE
Sunday 28th. February 1988 at 2.00pm.

DIRECTORYTHEATRE ORGAN SOCIETY OF AUSTRALIA (N.S.W.DIVISION) INC.

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CONCERT TAPE HIRING Neil Palmer (798 6742)

CONCERT TICKET BOOKINGS Frank Rohanek (747 1240)

Address all correspondence to;-
The Secretary, T.O.S.A. (N.S.W. Division) Inc.
Box 474 P.O. Sutherland N.S.W. 2232.

CHANGE OF PHONE NUMBER

Please note new telephone number of Treasurer John Rattray.
John's new number is 750 3779.

T.O.S.A. JACKETS

Many members have bought those smart looking blue TOSA jackets and are wearing them to concerts etc. but I am sure that many more members will buy them yet.

The sale of each jacket makes a small profit for TOSA Funds - and we **DO** need the profits.

At \$35.50 with the new cloth TOSA badge, the jackets are real value. I will have samples and "try on" jackets at future concerts so please come and place your order.

Pam McMinn
Assistant Secretary.

DATES FOR
YOUR DIARY



DECEMBER

SUNDAY 6th at 2.00pm.
TONY FENELON IN CONCERT
MARRICKVILLE TOWN HALL

Admission:-

Adults	\$9.00
TOSA Member	\$7.00
Pensioner	\$6.00
TOSA Pensioner	\$5.00

BOOKING FORM IN THIS ISSUE

MONDAY 7th at 7.00pm.
COMMITTEE MEETING

SUNDAY 13th at 12.30pm.
TOSA CHRISTMAS PARTY
MARRICKVILLE TOWN HALL
For all TOSA members and friends.
Buffet luncheon - B.Y.O.
Five piece dance band.

COST

Adults	\$20.00
Children under 15	\$12.00

Cost does not include drinks

BOOKING FORM IN THIS ISSUE

JANUARY

MONDAY 4th at 7.30pm.
COMMITTEE MEETING

WEDNESDAY 20th at 7.30pm.
CLUB NIGHT HAS BEEN CANCELLED.
(Incorporated with quarterly meeting held
in February).

SUNDAY 31st at 2.00pm.
FREE CONCERT
MARRICKVILLE TOWN HALL
Featured artists will be Neil Palmer and
John Giacchi.

FEBRUARY

MONDAY 1st at 7.30pm.
COMMITTEE MEETING

WEDNESDAY 10th at 7.30pm.
QUARTERLY MEETING - CLUB NIGHT
MARRICKVILLE TOWN HALL
Please bring a plate to share for supper.

SUNDAY 28th at 2.00pm.
FUND RAISING CONCERT
CAMPSIE ORION CENTRE
Tony Fenelon and Ray Thornley in concert
Featuring Yamaha grand and the soon to
be released Yamaha HX1.

A CONCERT NOT TO BE MISSED

Admission:-

Adults	\$10.00
Children under 15	\$5.00

BOOKING FORM IN THIS ISSUE

NOTE; Tickets will also be on sale at the
Tony Fenelon concert.

THE A.G.M. REVIEWED

And so it came to pass that on the fourth day of November, in the week of the great horse race festival in the south land, that two score of our number met in the Great Barn on Marrickville Road to hear the news and review the events of the year just past and to receive our leaders for the year hence.

Our leader bade welcome those in attendance and after receiving notice from the ill and infirm, your scribe read from the tablets the words recorded about the prior gatherings.

In review of her term as chief, our President heaped fame and glory upon the chosen few who laboured long and hard and bade farewell to those who have laid down the burden of office and duty in the last year. Not to be outdone, your humble scribe likewise did and in a melancholy mood, scorned those who choose not to partake of the fruits of TOSA and verily warned that if the shackles earned at future gathering continue in the negative that future gatherings of the loyal and hearty will not support the grand plans.

Many fine parchments of elaborate nature were distributed to the multitude in order that they may know the source, destination and quantum on hand of the numbers and value of gold bullion. Verily I say unto you the state of the Treasury was duly explained and reproductions of those parchments are contained herewith. One of the said parchments declared to all that all of the gold bullion and pieces of eight have been duly accounted for and none are misplaced or mislaid.

The keeper of gold bullion and your humble scribe took turns to inform the hearty few in attendance of the plans for raising the great white console from the depths at the new hall of music and merriment in the Municipality of Canterbury. During the weekend of 1st to 3rd October in the year of our Lord, one thousand nine hundred and eighty eight, members and friends from many leagues apart will gather for a great festival of music and food to witness that with the help of Squire Parker from the land of the long white cloud, along with his band of merry men and many gold bars that music will flow from the mighty Wurlitzer that was

once the pride and joy of one of the greatest picture palaces of yesteryear. A new set of circuits designed and built by Devtronix in the United States of America, a land far across the sea, has been commissioned and will be on hand shortly.

Very few questions were asked by the members here gathered and the leaders assured themselves that all must be well.

Squire Palmer informed the members present of the recent duties he and his helpers have performed on the organ in Marrickville Town Hall.

She who presides, handed over to The Returning One who dutifully informed all those here gathered, that his duties were now concluded and all those nominated as leaders and deputies and scribes and keepers of the treasury and as honourable members of committee had been duly elected as their positions had not been contested or sought after by others.

He who records the happenings on tablets of stone was re-appointed for his second term. In order that all may know that the gold bars and pieces of eight continue to be accounted for one Arthur Conomos was re-elected to be "Checker Up". By unanimous decision and much applause, the great Great White Master will patronise the gatherings for another year.

By the miracle of member participation, it came to pass that all those present, having heard all the facts, decided that each and every member of the society shall in future subscribe more pieces of eight to have the privilege of membership of this erstwhile body. All future renewals and new memberships shall subscribe as follows.

Single membership	\$16
Joint membership	\$24
Concession membership	\$8
Country Interstate and overseas membership	\$10

In making this decision, those present were reminded that many sunrises have passed since last such an adjustment was made and that even now, sister organisations in other colonies charge more for membership.

Other members here gathered made points of more or less significance to the meeting which then concluded.

Bread (and other goodies) was broken and distributed among those in attendance.

Scribe Bob McMinn.

BICENTENNIAL MUSIC COMPOSING CONTEST

During 1988, as a Bicentennial Project, T.O.S.A. (N.S.W. Division. Inc.) is organising and conducting a competition for composers and aspiring composers. The project is being funded by Marrickville Municipal and The Bicentennial Authority. The project is in the form of a Contest to find a new composition of a musical item, suitable for playing on Theatre Pipe Organ and with a Bicentennial "flavour".

The contest is restricted to Australian citizens and residence and carries a prize of \$1,000. Plenty of time is allowed for the composition of suitable work as entries close on 30th June 1988.

The contest is to be judged by a panel of judges, appointed by T.O.S.A. (N.S.W. Division) and at the time of judging, the judges will not know the identity of the entrants.

The winner will be announced at a Special Free Concert to be held on 30th October 1988 where the winning entry will be presented.

The organizers see the contest as a wonderful way to promote the Theatre Pipe Organ and its music and would encourage serious musicians and students alike to enter the contest, so why not get those manuscript books out and GO TO WORK.

The following rules apply to the contest and an entry form is enclosed in this issue.

**T.O.S.A. (N.S.W. DIV) Inc.
BICENTENNIAL MUSIC
COMPOSITION CONTEST**

RULES AND CONDITIONS OF ENTRY.

The ORGANISER is Theatre Organ Society of Australia (N.S.W. Div.) Inc. hereinafter referred to as "THE ORGANISERS".

1. The contest is open to all Australian Citizens or Australian Residents of 12 months standing except the organizer's Secretary and his immediate family.
2. Entries will only be accepted on the Official Entry Form. Each entry must be in the form of (a) an audio cassette of the composition played on an organ (electronic or pipe) and (b) a manuscript. Each entry must be separately mailed. **DO NOT** write your name or any other identifying information on the manuscript or cassette, Each entry will be numbered to ensure anonymity during judging.
3. No entry fee will be charged.
4. An entrant may submit as many entries as he/she desires. In the case of more than one entry by an entrant, each entry must be accompanied by an Official Entry Form and mailed in a separate package.
5. Entries close at midnight 30th June 1988 with the Secretary T.O.S.A. (NSW Div.) Inc. Box 474 P.O. Sutherland 2232.
6. The winning entry becomes the the joint property of the organisers and the composer. Copyright will not vest in any person, group of persons or organisation. Non-winning entries will be returned to the entrants.

7. The judges decision is final and no correspondence will be entered into.

8. The winning entry will be presented by an organist chosen by the organisers at a concert to be held on Sunday 30th October 1988 at Marrickville Town Hall.

9. Entry into the contest or being named as the winner of the contest does not guarantee the right to present the winning composition at the concert.

10. To be eligible for judging, each composition entered in the contest must be an original serious composition (not simply a popular song) and suitable for playing on a theatre pipe organ. The composition must be titled and the title must of necessity have Australian or Australian Bicentennial connotation. The contest, whilst being music, as opposed to music and lyric contest, need not exclude lyrics, but if lyrics are included, they **MUST** be of a Bicentennial nature. Any lyrics, if supplied, will not be considered in judging.

11. One prize only will be awarded, and that prize will be awarded to the composer of the piece of music judged to be the best original entry. The prize is \$1,000.

12. The winning entry will be published in manuscript and audio cassette form for distribution by the organisers. Marrickville Municipal Council will archive copies of the winning entry.

FOUNDER'S DAY 1987

SUNDAY NOVEMBER 29th 11am-4pm
FOUNDER'S DAY 1987 OPEN DAY
AT MASTERTOUCH
96 Crystal Street, Petersham.

Mastertouch and Music Roll Australia will welcome visitors from 11am. until 4pm. on Sunday 29th.

Bring your friends, your family, and see all the interesting facets of piano roll manufacture, part of this unique industry.

ORGAN INSTRUCTION NIGHT

(By Doug Smith)

Tuesday 27th October was organ coaching night at Marrickville Town Hall, but the number of keen learners (2) must have been very disheartening to our attractive instructor Margaret Hall, who had interrupted a very busy Conservatorium schedule to give her normal rest time to TOSA members.

However, Margaret went to great detail to show us some of the secrets of progressive voicing and several other aspects of using the instrument to advantage and changing of registration to enhance phrasing etc.

Indeed, it was a good lesson that could be taken well by a few people I often hear, that do nothing else, but go and blow its brains out everytime they play it!

Thanks Margaret for your time, we both enjoyed it immensely.

PIPE DREAMS AT THECAPITOL WORKSHOP

(By Doug Smith)

Well now, even though our members seem to be conspicuous by their absence at some of our recent events, there is plenty of action going on at the Orion Workshop and fortunately, there is often a lighter side to some of the jobs being done, one of which I will relate here.

Whilst stripping down a shutter action for re-leathering, apprentice No.1 noticed that the original primary pneumatic covering looked a bit different and questioned the **BOSS**.

"Yes, that's what was used initially by Wurlitzer to cover these primaries and it's known as zephyr skin."

Apprentice No.2 "What sort of animal is a zephyr and where does it come from?"

Boss: "Zephyr is not actually a skin, but is a membrane from a sheep's bladder and was used because of its lasting qualities."

Apprentice No.2: (Logical as always)
"Gives a whole new dimension to organs, doesn't it?"

Apprentice No.1: "Yes, first liquid and now air and still going!"

Boss: (Quietly to himself)
"Yes, a bit like haggis!"

CONGRATULATIONS

Congratulations to Libbie and Clinton White, from the ACT, on the birth of a daughter, Katherine Emily, born 27th October. From all reports, both are well.

THEATRE ORGANS IN SYDNEY UPDATE

From a interested reader of TOSA NEWS, I stand to be corrected on the number of Theatre Organs still playing in Sydney.

From the information I have received, it appears that there is still another Theatre Organ still playing in Sydney, and that organ is a 3/10 Christie from the Burwood Palatial, now installed in the Seventh- Day Adventists Church in the Sydney suburb of Wahroonga.

That brings the total of theatre organs still playing in Sydney churches to 4, making a total of 12. If other readers can provide more information on theatre organ installations in Sydney, please let me know.

Editor.

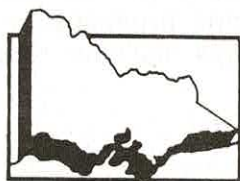
NEW MEMBERS

(November meeting)

R.J. Somerville, V.J. Arnold, A. Wallace, M.B. Fullagar, M.M. White, J.K. Foster, P.A. Stoddart, B. Osborn.

President Phyllis Wilson and Committee extend a warm welcome to the new members.

NEWS FROM



VICTORIA

BRIGHTON WURLITZER OPENING

DATE SET

Sunday 17 April 1988 has been chosen as the date for the grand opening concert of TOSA Victorian Division's 3/15 Wurlitzer now installed in the Village Brighton Twin Cinemas' No.1 theatre.

The date was selected after considering a number of factors which are important to ensuring the complete success of such a significant occasion. These include the final preparation of the organ, the artists, and other TOSA activities Australia wide.

It has been hoped early this year that the organ would make its public debut before the end of 1987. However, a start could not be made on the crucial job of tonal regulation until somewhat later than had been envisaged. Then the interruptions to the schedule of the professional organ builders contracted for the work, S J Laurie Pty. Ltd. by the theatre's screening sessions meant what was first thought of as a few weeks ran into months. The job has been finished only recently.

Next, the organists have to be considered. There has been general agreement within the Division that the honour of performing at the opening concert should be reserved for Australian organists. Their availability and readiness to participate is of major importance to the success of the event.

At this time of the year organists, like all professional musicians, are extremely busy with engagements booked months ago. Apart from unavailability on any date which might be chosen, they would find difficulty in fitting in adequate practice preparation for such an auspicious occasion.

The attitude of the organists generally was summed up a few weeks ago by Tony

Fenelon, when he said, "Let's make sure we get this one right". Tony was referring to the succession of organ openings in which he and other organists have taken part in recent years which have been a hair's breadth away from being disastrous. Latent problems which become apparent in the lead-up time to the concert, when there is no time for any major work to be undertaken, make the task of the organist very difficult. As far as the audience is concerned, they are unaware of the difficulties. Any shortcomings in the performance they attribute to the organist.

Another aspect taken into consideration in selecting the date was the fact that the 1988 Convention in Canberra will be held on Anzac weekend, from 22 to 25 April. The opening at Brighton the previous Sunday will make it possible for many interstate organ enthusiasts to include this event in an extended holiday of two or three weeks, which experience has shown has become the habit of a significant number.

The date having been set, every effort will be made by all concerned to ensure that the re-opening of the famous former Capitol Melbourne and Dendy Wurlitzer will be such as to justify the years of work by Bruce Hester and his team of volunteers in removing the organ from the Dendy, completely overhauling it, replacing its worn-out electrical relays with a solid state system and re-installing it in the new Brighton Twin Cinemas.

News source "VOX" November 1987.

ON THE SICK LIST

Brian Tooker has just returned home after spending a few days in hospital where he had his tonsils removed. Reports from Brian's mother Pam, is that he is still suffering from a sore throat, but is well on the way to recovery.

CHANGE OF PHONE NUMBER

TOSA Treasurer John Rattray wishes it known that his phone number has been changed. The new number is 750 3779.

OFFICIAL OPENING OF ORION ORGAN

**ORION CENTRE
October 1st to 3rd 1988.**

At the Annual General meeting of the Theatre Organ Society of Australia (NSW Division) Inc. held on 4th November 1987, it was announced that the Orion Centre (Ex-Capitol Sydney) organ will be officially opened during the long weekend, Saturday 1st - Monday 3rd of October 1988. The opening will take the form of a "Mini Convention" with three separate functions featuring the organ.

Negotiations are under way with artists and a superb line up, fitting such a event, is assured. In addition, very high level approaches have been made for dignitaries to perform the official opening.

As well as announcing the opening, the committee informed the meeting that a decision had been made in favour of Devtronix Music Inc. of California as the supplier of the electronic control equipment to "solid state" the organ. The Devtronix system uses state of the art circuitry and should make the organ one of the best in Australia. The combination system allows the artist to readily change piston settings, in fact every piston becomes a general piston. Coupling and transposition are uniquely catered for and the system includes a record / playback facility.

The record / playback facility allows an artist to hear his own work and allows for multiple recording, up to 17 times.

The committee informed the meeting that although the Devtronix system would cost to the order of \$20,000 and that a part payment had already been made, it was in fact no dearer than locally made equipment when full account of its versatility is taken.

On the subject of the opening "Mini Convention", planning is apparently well under way with a special committee having been formed under John Rattray, the TOSA NSW Treasurer, who has a wealth of experience in theatrical production. It is anticipated that bookings will open in the new year and like conventions, accommodation bookings etc. will be available through the organizers.

More details will be released as they become available, but for all theatre organ enthusiasts this promises to be one of the better openings and one that should not be missed.

DAVID JOHNSTON FILM AND CONCERT EVENING

Marrickville Town Hall
Saturday 24th October 1987.

What a night it was . . . What with torrential rain and another disgraceful turn out by TOSA members, the **EXCELLENT** programme presented by Melbourne theatre organist David Johnston was most certainly enjoyed by those people who **DID** brave the weather and attend the evening film/concert performance at Marrickville Town Hall.

After a warm welcome from compere Frank Ellis, David Johnston began his evenings entertainment with an uptempo, bouncy arrangement of "When Your Smiling" - a good idea for all of us who were listening to the rain beating on the roof accompanied with flashes of lightning.

David continued with his audience warm-up, encouraging lots of hissing and booing for the villains; Oohing and Ahhing for the heroine and clapping and cheering for the "good guys". After a couple of practices, we were shown a film made up of extracts from many of Charlie Chaplin's films. The small, but **VERY** enthusiastic crowd loved it, but were I think, so engrossed in the movie that they forgot their earlier warm-up and there was little hissing, booing or clapping - but laughter aplenty! Never-the-less, the silent film and David's accompaniment were applauded vociferously

A selection from the 'yet to get here' musical "Phantom of the Opera" followed on the programme. This was purely an organ solo and, although the weather outside was atrocious, we all admired the magnificent display of lightening that added dramatically to this excellent music. At times eerie and chilling, then very beautiful and expressive, this selection was for me, one of the highlights of the night.



A jubilant David Johnston takes a bow following his encore.

Next up was a Sing-A-Long and the 150 strong audience did their best to make up numbers with loud and clear singing. Playing a number of 'Golden Oldies', David made effective use of the Tibia 2.2/3 and 1.3/5, together with the Sub Octave couplers to produce an authentic "Blackpool sound" much to the 'horror' of some of the 'less broad-minded' cynics! personally, I loved it! and if that's what it takes to help create an atmosphere and enthusiasm, maybe some lessons could be learned.

The Sing-A-Long concluded with "California Here I Come" and was followed by a slide show about Superman - or was it Super David?? - Wonder Boy Organist. One wonders who the damsel in distress was that he rescued - Irs Nordgrove perhaps? - with all 'the selection of pipes' in the slides, it just could have been! Seriously though, there were some historic slides of David right from school days to the present day, seated at a variety of different church, theatre and electronic organs.

"The Man From Snowy River" - a film shot on location in Australia a few years back, provided the next solo Wurlitzer spot. Different moods and moments of the film, were captured by David and presented to the audience in a well played collection of melodies. This took us to the final item prior to interval.

To close the first half, we returned to the world of Charlie Chaplin, in his funniest comedy - "The Rink". What Chaplin did on roller skates has to be seen to be believed! The organ accompaniment was excellent, to the extent that at times I became quite oblivious to it - a good sign and one that proves the organist is doing the right thing.

After a hot cup of tea and examining 'stalled' cars at the intersection outside the Town Hall, we were introduced to the second half of the programme by Frank Ellis, who seemed convinced the roof was about to fall in as a water leak had developed above his head! There was a great laugh from the audience, when

Frank announced that big grasshopper was quietly sitting atop his microphone - much in keeping with the comedy of the night.

The main feature film of the evening was the Australian made silent picture, "On Our Selection" featuring Dad and Dave. It was as excellent print, and again, David did a fine job musically. The movie included all the typical silent moods, anger, sadness, love, pathos, and of course, comedy. It proved that the Americans and English were not the only ones capable of making movies in the 1920's. This hour long programme received loud and long acclaim from the crowd, resulting in David's return to the console to play a medley from the musical "Mac and Mabel".

Sadly, 11.00pm. was on us and the evening came to a close. Considering the weather conditions and late finish, nobody was seen to leave early. Obviously a sign that David Johnston's concert was well received and much enjoyed by all who attended. I look forward to his return to Sydney in the future and improved membership turnout for one of Australia's top theatre organists.

FOOTNOTE:

Members of the society are not doing their best to **SUPPORT** the programmes the committee is providing for them. As a **NON-MEMBER of TOSA**, I am embarrassed and shocked by the poor attendances to society functions. I am sorry for the committee who work very hard to provide activities that **YOU** cannot be bothered attending.

Coming from New Zealand - where theatre organ is still growing, I can honestly say that the 600 plus membership of TOSA N.S.W. **DO NOT** do as well as New Zealanders, when it comes to attending organ concerts, let alone lending your society support and loyalty.

The recent visit by Hector Olivera showed an unbelievably poor attendance. Yes, it was Father's Day; but considering that this artist can now be described as the **FINEST ORGANIST to EVER** have performed at Marrickville, I can only state that it was **YOUR LOSS** not to have been there!

I wonder whether many of you would be members at all if Tony Fenelon didn't play

once a year for the society?

You all support Tony? Why not the other names the society spends money to present to you.

I think that members of TOSA N.S.W. should take a good hard look at yourselves and ask yourself . . . **Why am I a member of TOSA?** Perhaps the answer might occur to you!

Very shortly, Sydney will be the mecca for theatre organs in Australia, but I wonder what it means to you all; probably **NOTHING** if your concert attendance is anything to go by!

I am presently installing the Orion Centre organ, but I wonder to myself 'for what purpose?' - are people going to come and hear it? Did I give up a good position and home in New Zealand to come to Sydney to work for a society that I had always held in high esteem and in fact, founded our own Auckland society on! **I WONDER.**

I leave it to you all. Your committee is doing a fine job. Why not work by the aims and objects of **YOUR SOCIETY** and not have New Zealand or interstate divisions get the better of N.S.W. by showing **THEY** care more than **YOU DO!!!!!!**.

John Parker
Organ Builder.

Editors note.

I, along with many other members, fully support John Parker in his comments, and hope in the future, for the benefit of your society, we can all expect better attendances in the new year.

For those interested in the financial outcome of the David Johnston concert, a very disappointing outcome resulted in a **LOSS** of \$493.50.

UNIFICATION, DUPLEXING AND

MULTIPLEXING

(By Colin Tringham)

Some months ago, before I became involved in the Orion Organ project, a T.O.S.A. member told me that the old Capitol Organ was going to have a solid-state relay. In rather more overawed tones he confided that it would be 'Multiplexed'. He did not seem too sure just what this meant except that it was definitely a 'good thing'. Here is my explanation of this subject.

Let us look at a simple view of how an electric action organ (i.e. a Wurlitzer Theatre Organ) operates.

FIGURE 1.

Look at this diagram and see what happens;- The organist presses a note, the shorting bar makes contact between the two wire fingers and a 12 volt source is connected to the wire which reaches from the to the pipe chest. Here the current energises the magnet which attracts the little disk (which is normally held against the opening by the air-pressure inside the chest). The disk moving breaks the seal and the primary motor M1 (which is just two pieces of wood held together with an airtight membrane of soft leather), collapses due to the air-pressure. This operates the two valves which are linked to the primary motor. This now allows the pressured air which surrounds it to collapse the secondary motor and air escapes through the seal to the pipe.

There are some problems with wiring an organ as shown, firstly it means that the rank of pipes is always operative, so we need a switch in each of the 61 wires leading from the keyboard to the pipe chest. This would allow that rank of pipes to be switched on and off at the touch of a stop-switch, and this is how many 'straight' (e.g. church) organs are wired. However, a theatre organ is required to supply the widest variety of sound from its rather sparse number of pipes. A church organ may have 100 ranks of pipes, a theatre organ rarely has more than 20 - and often only half that number. What makes the wide range of sound possible is that every rank of pipes can be played from more than one keyboard, and at more than one pitch. A single string rank

of 61 pipes may have an extra octave added to the top and bottom of it. It may then be played at 8ft. and 4ft. pitches from the accompaniment manual, 16, 8, and 4ft. from the pedals and 16, 8 and 4ft. from the Main or Solo manual. One rank of pipes then can account for 8 stop tabs. Multiply this by fifteen ranks (some of which may be available in even more pitches - 5 1/3, 2 2/3, 2. and 1 3/5th. foot) and you can see why the average Wurlitzer console bristles with stop tabs. Making a rank of pipes available at another pitch is known as Unification. Making one rank available at more than one keyboard is known as Duplexing. (Both practices are frowned upon by classical organists and other purists).

This added versatility is not without its problems though. Hope-Jones solved the difficulties by using a system known as the 'Relay stack'. If you look at figure 2. you will see that the organ contacts now operate a pneumatic relay inside the relay rack, this ensures that the power supply is connected to around 30 wires. Each of these wires is connected back to a 61 contact switch which is mechanically connected to the relay board (also pneumatically) whenever that particular stop-tab is operated. However, second-touch stops usually by-pass the relay system and correct operation means we need an extra set of contacts under every key for each second-touch stop-tab. This means that we need 61 wires for each keyboard (plus another 61 for every second-touch stop) and another 32 for the pedals. For a 3 manual organ with second-touch on the pedals and the accompaniment manual, this means that there will be 3 times 61 wires for the manuals plus 32 wires for the pedals plus 5 times 61 for the accompaniment second touch stops, and 4 times 32 for the pedal second touch stops all going from the console to the relay rack. Add a wire for every stop-tab and a few for spares plus extras for the swell shutters and percussions and you reach at least 700 wires. Even with only two manuals this number explains the massive 'umbilical cord' to the Marrickville organ.

FIGURE 2.

There is a further problem related to the Relay stack system. Apart from the extra pneumatic action, there are 61 moving

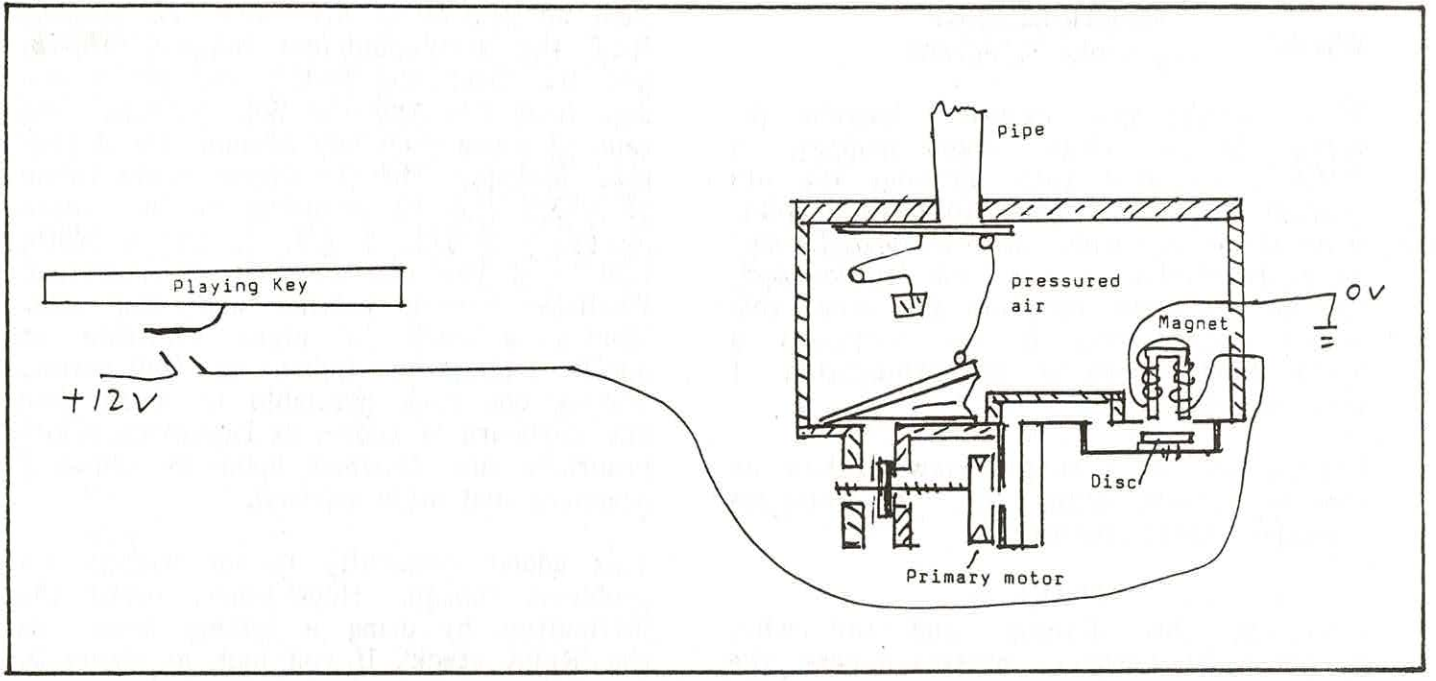


FIGURE No.1

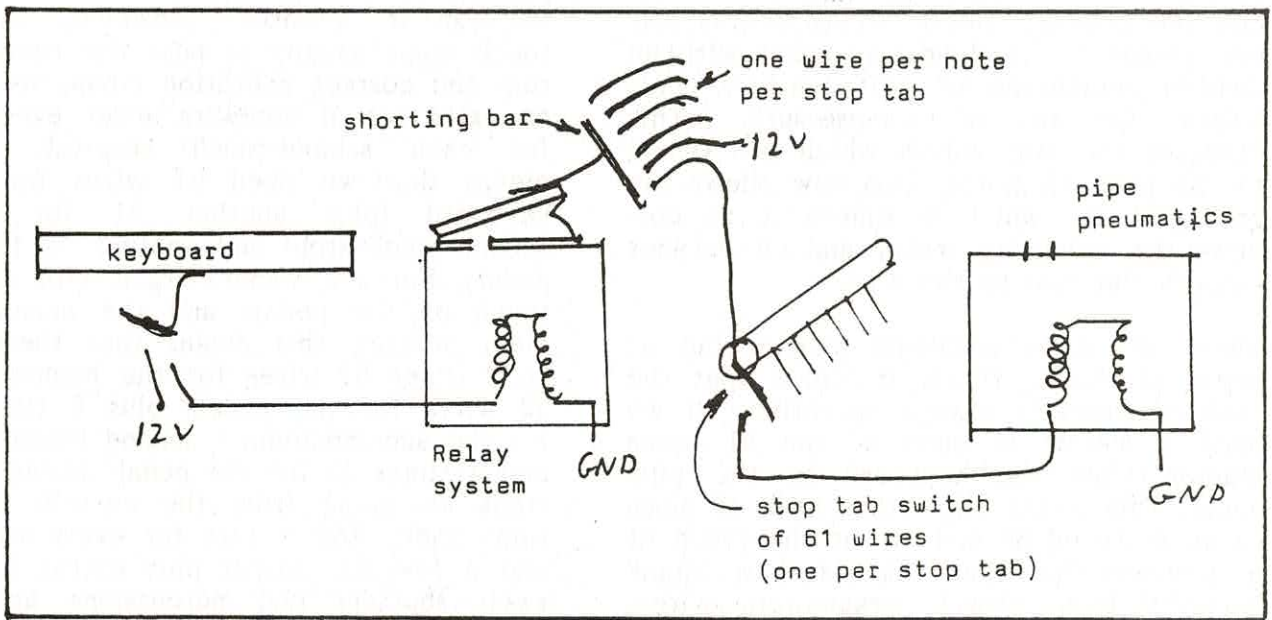


FIGURE No.2

contacts (less for the percussions which do not cover the full keyboard) for EVERY stop on the organ. Now, moving contacts which are required to provide a reliable contact for our 12 volt supply are difficult enough to make with the latest developments in metallurgy and contact technology. That contacts designed 50 years ago work at all is quite remarkable. However, they require constant maintenance, and according to Neil Palmer, it is these contacts which cause the majority of maintenance problems at Marrickville.

Multiplexing is a means of sending more than one bit of information down the one cable. Using a simple system will reduce our cable count dramatically. Using Multiplexing means that we will replace all our moving contacts with modern, reliable solid-state devices which require no maintenance. These two improvements at one time is the reason that the vast majority of Theatre Organs remaining in the world are now controlled by solid-state systems.

I'll try and explain a very simple (and old-fashioned) system first. To reduce our cable count, let us just connect all the manuals - including all the second touch contacts together. This gives us just 61 wires to go between the console and the pipe chambers. Now let us supply our 12 volts power supply to each manual in turn. A diagram will show how this is done (the electronics of this are very simple, although each manual will need to be separated from the others by simple diodes which act as one-way passages for the power).

FIGURE 3.

Multiplexing wiring from the console to the chambers.

But what happens if an organist presses a key at a time when power is being supplied to another manual? Of course the answer to this problem is the speed at which the power is supplied. Modern electronic circuits will loaf along at 60,000 cycles per second, which means that each keyboard is being checked 10,000 times per second. Not even Hector Olivera would notice the delay. In fact, the elimination of the pneumatic relay would speed up the operation compared to the original relay stack system.

FIGURE 4. The timing of the pulses.

However, the elimination of the large number of wires is only the tip of the iceberg. Look at diagram 5 where there is a coupler system added to the organ. This would consist of a printed circuit card with about 27 'integrated circuit chips' each costing about \$1.00. One chip can handle six notes. This is controlled by the signals at the top of the drawing and these are synchronised with the clock pulses which are supplied to each manual. If we have the great octave coupler 'on' then when ever 'great' pulses are supplied to the keyboard, power is supplied to both the Unison and octave couplers. Simple packaged circuits are available to look after the logic of all this. Now we need to wire the output of the coupler system to another identical board for every rank of pipes. One board would be named the Salicional board and would handle 16, 8 and 4 foot pitches for that rank FOR EVERY MANUAL! Ranks such as the flute which need more pitches could have extra boards added.

FIGURE 5. The coupler system.

But what about coupling one manual to another. This is incredibly easy!! All we need to do is to put our keyboard pulses to the 'wrong' manual. Putting Great keying pulses to the pedals would provide a great to pedal coupler.

Finally, we need a circuit to actually supply power to our pipe chest magnet. However, our magnet is only being supplied power in very short pulses, so we need a 'pulse-stretching' circuit which will keep the power circuit operating over a complete pulse cycle.

But what about all those stop-tabs, and swell shutter wires? Well we can add another three clock pulses and send these down the same wires as the manuals. It is no problem to separate out these signals with a small amount of circuitry in the chambers.

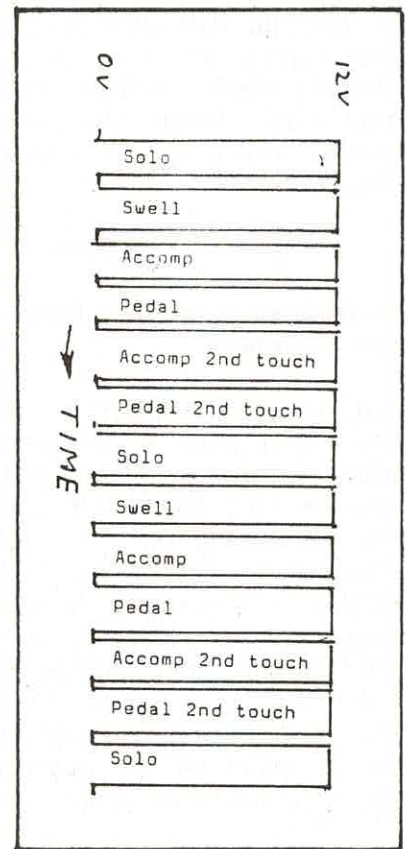
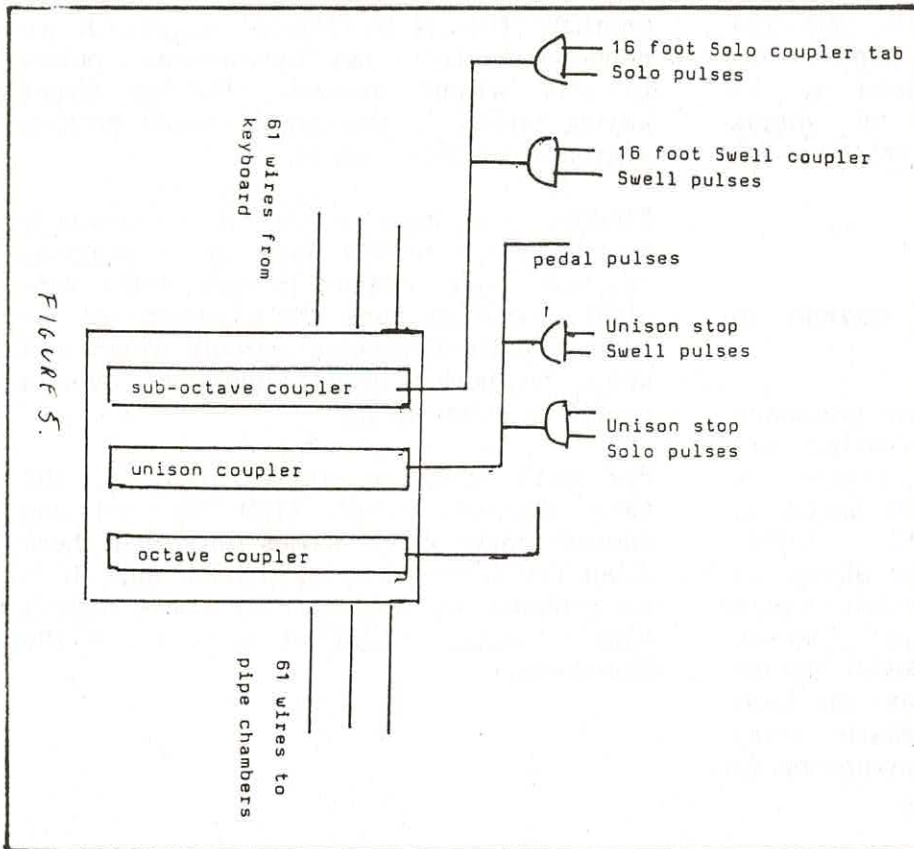
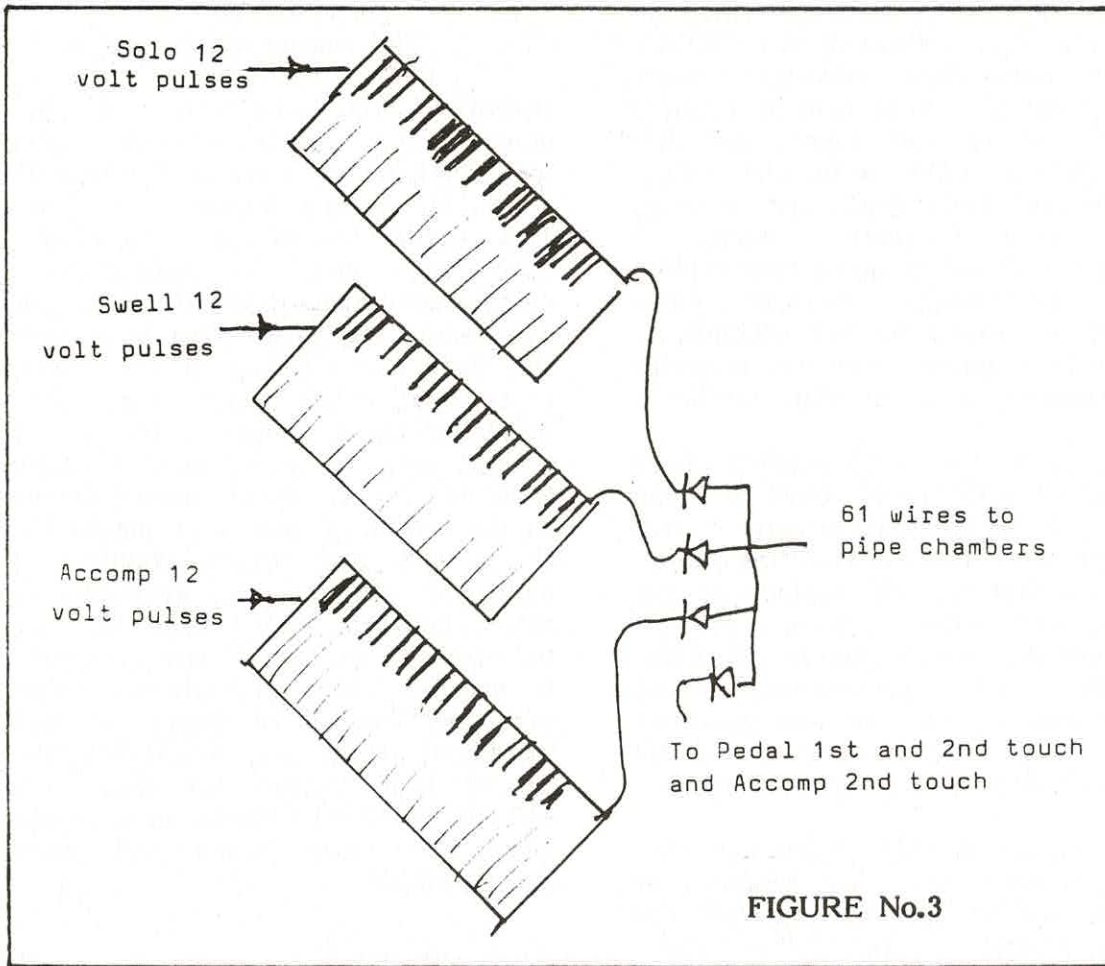


FIGURE No.5

FIGURE No.4

The system described shows the advantages of multiplexing as 700 wires have been reduced down to about 65 (we need a few extra for synchronising the clocks and supplying power to the console). Other advantages of the system described are that many of the circuit boards are identical, meaning that the design time is reduced and we can use commonly available parts.

Next month I will explain a much more sophisticated - and in many ways simpler system. But I'll leave you with a problem to ponder. How would you significantly REDUCE the amount of information sent from the console to the pipe chambers?

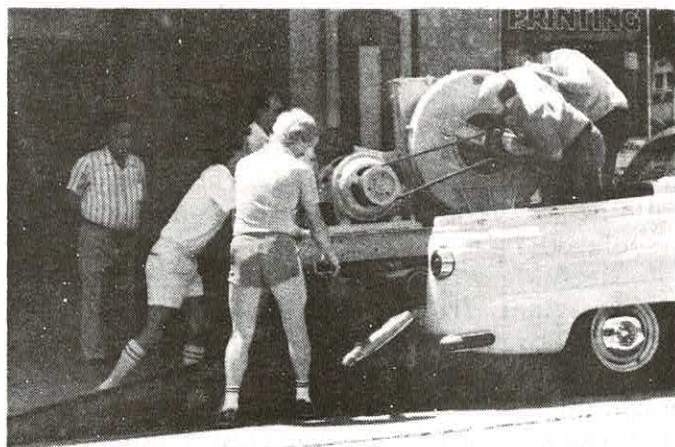
I'd like to express my thanks for the assistance received in writing and correcting this article from John Parker and Neil Palmer.

ORION ORGAN HAPPENINGS

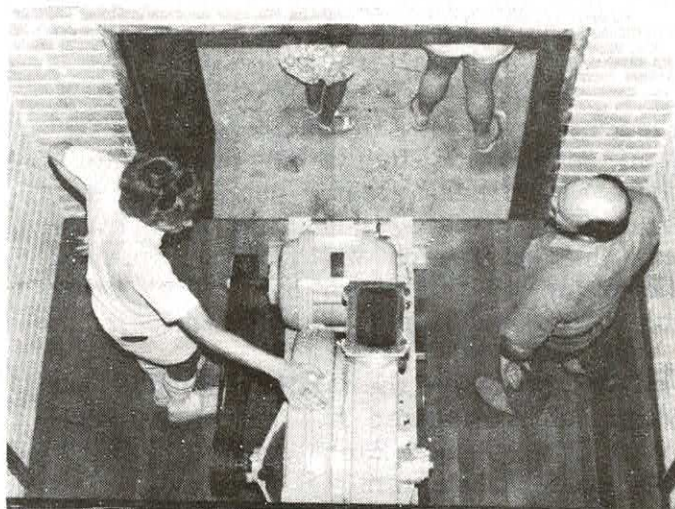
The blower for the ex-Capitol organ at present being installed in the Campsie Orion Centre, has now been fully overhauled by Ian Somerville. New bearings, pulley and 'V' belts have been fitted along with a coat of battleship grey paint. On Sunday the 1st of November, Bill Schumacher, Rob Gliddon, Ross Adams and Ian Somerville loaded the heavy blower onto Ross Adams utility for the trip to Campsie.

On arrival at Campsie, several other members, Murray Ries, John Rattray and John Parker helped in unloading the blower, much to the amazement of several spectators. The blower was wheeled through the hall and taken down on the hoist to the blower room where the door had to be taken off so the blower would fit into the blower room. The blower mounting frame has now been bolted to the floor on special rubber mounts to eliminate vibration and is now ready to connect to the power supply that the council has kindly supplied for us.

See photos.
Editor.



Arriving at the front entrance of the Orion Centre at Campsie.



Blower unit being taken down on the hoist to the blower room under the stage.



The blower unit, mounted on temporary castors, being wheeled into position.

ORION REPORT - DECEMBER

At the time of writing, work has been proceeding at a very steady rate, on the building of new swell shutters and their associated frame work.

The original frame that had been constructed to fit the tone openings at the Orion Centre, had been the subject of much consternation from myself and many other people owing to the very small size of the shutters - only some 2'- 3" high.

The fact that the instrument is an under-stage installation and is speaking through tone openings that really are too small for the size of the organ required, the construction of larger shutter frames - set back into the organ chambers to leave the tone openings into the auditorium clear of framework and shutters.

The result is sets of shutters some 4'7" high, set back 1 foot from the openings. There should be a greater control over the expression of the organ using these new size shutters, which we hope will project the sound of the organ as well as being able to close it right off to a whisper.

The shutters for the Main Chamber are completed and tested and awaiting installation at the Orion. Work continues on the Solo Chamber shutters.

Other jobs currently being attended to are the restoration and re-leathering of the Sleigh Bells and Chrysoglott. The Harp is to be removed from the Marrickville organ shortly for complete restoration and installing at the Orion.

As you will read elsewhere in the TOSA NEWS, the blowing plant has been delivered to the Orion Centre and installed in the Blower Room under the stage.

The past seven months have been very busy ones for me as head of the Orion installation. I am satisfied that under the conditions, we have made great progress, and I am indebted to those few dedicated TOSA members, who attend the workshop on a regular basis.

From all on the Orion Restoration Team, I take this opportunity to wish everyone a

very Merry Christmas and a Happy New Year.

John Parker
Organ Builder.

ANOTHER ORGAN ON THE GO

IN SYDNEY

Entertainment magnate Mike Walsh's newest theatre restoration - The Orpheum, Cremorne - boasts a 3/12 Wurlitzer organ!

The Wurlitzer has been installed by the Adelaide firm of "George Stephens - Organ Builders" with assistance from Sydney organ builder, John W. Parker in a period of **SIX** weeks!

At the time of writing, the theatre is nearly ready for the Grand Opening on December 9th 1987, with drapes being hung, carpet and seating being installed along with the new projection equipment.

Although in original electrical condition (switches and relays) and in eventual need of solid state action, the Wurlitzer is tonally one of the finest in Australasia. Much time and care has been given to tonal balance between ranks and the much important setting and regulating of tremulants.

Resident organist/musical director, Neil Jensen, has played a major role in the design of the winding of the organ. Neil has utilised many ideas gained from his concert trips to the U.S.A. where organ sound is a totally different approach to that here in Australia.

A fine new Trivo Company Post Horn has been added to the organ and provides a rich additive that was required to enhance an other wise non-descript tonal scheme. Also SUB and SUPER octave couplers have been added to the great keyboard and the Tibia unit has been extended to 1 3/5 pitch.

The console decoration and keyboards have been restored by John Parker, and since the completion of the installation by George Stephens, the tuning and main-

tenance of the Wurlitzer have been handed over to the former.

A listing of ranks is as follows:

MAIN CHAMBER:

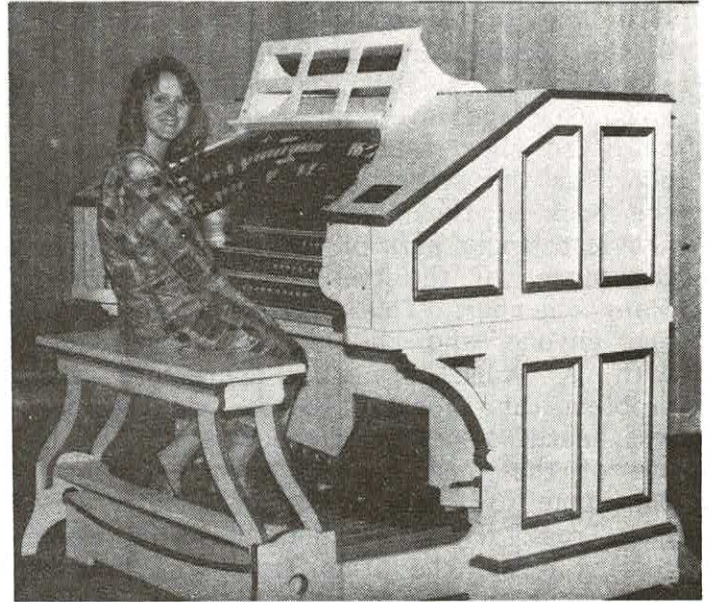
Diapason, Flute, Clarinet, Violin, Celeste Salicional.

SOLO CHAMBER:

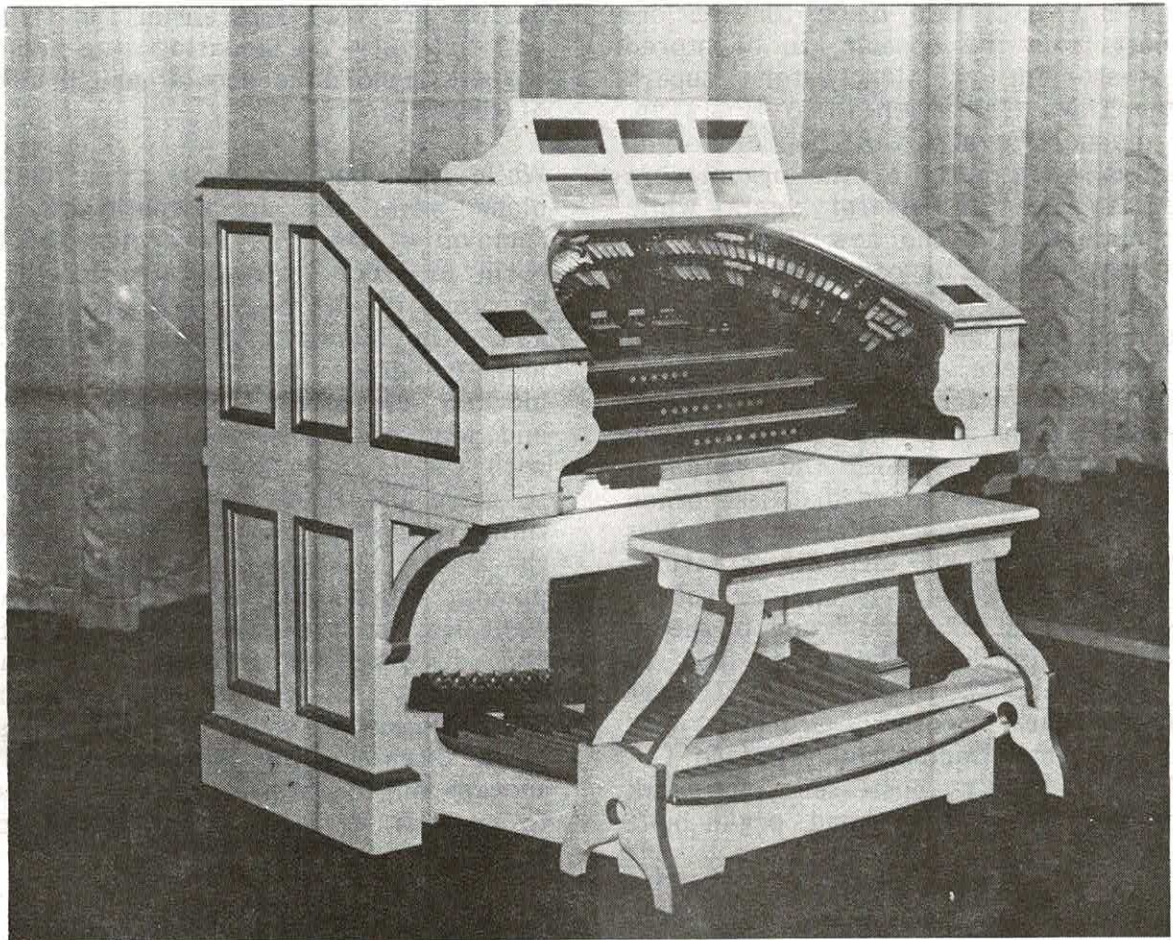
Tube Horn, Vox, Tibia, Orch Oboe, Kinura Post Horn.

It is intended that the organ will be used at virtually all theatre sessions, having its own spot in the programme.

Assistant organists to Neil Jensen are, David Smith and Margaret Hall - well known for her long term as resident organist at the Kogarah MECCA theatre from 1975 - 1981.



Sydney organist Margaret Hall at the console of the Orpheum Wurlitzer.



The 3/12 Wurlitzer now installed in the Orpheum Theatre in the Sydney suburb of Cremorne.

HANDS ACROSS THE SEA

(Continued from last month)

With the grilles demolished the contents of the chambers rapidly came down, but it should be noted that, having bought them down to stage level, all parts had then to be lifted eight feet out through the stage door, as the street levels were higher at the back of the theatre. The largest and heaviest single part of the installation was the bigger of the two wind-chests in the Main chamber. This carried seven ranks and anyone who has had anything to do with a WurliTzer will appreciate the problem this monster posed. One member was heard to mutter "Once this b_____ is out of the theatre we'll have to change our name to the Lancastrian Theatre Organ Truss!" By this time the drills were roaring away, the atmosphere was full of dust, and so it was with sighs of relief that the last boxes and bags of screws and the ground frame were removed from the theatre on August 14, 1973, 24 days after the closure of the doors to the public.

Arrangements had been made for the organ, apart from the console, to be stored in the basement of Manchester's superb Victorian Town Hall where, two floors up, a five manual Cavaille-Coll concert organ is situated. Here parts of the organ were destined to lie for several years while work commenced on the new site for this worthy instrument. The console was housed at a local firm of organ builders, Messrs. Jardine and Co., an equally worthy temporary resting place, for Jardines had been sub-contractors for Robert Hope-Jones' early organs and no doubt Robert himself had been inside the building, where now, 80 years after his first organ at St. John's Church, Birkenhead, was completed, one of his ultimate creations awaited renovation. Here is another reason why Opus 2120 is a "special" and it should also be noted that Manchester is only 30 miles from the birth-place of Robert Hope-Jones at Hooton Grange near Chester, and the Lancastrian Theatre Organ Trust actually possesses pipe-work from the St. John's Birkenhead, organ built in 1892.

A relocation of the magnitude of a 4/20 WurliTzer in a well-used public hall involves a great deal of advance planning before work actually starts, and this is mainly how we were occupied during many months to come. The Trust had to have meetings with many city officials to settle

details of structural and electrical work, and to define how the many heavy parts of the organ would be lifted into the Free Trade Hall. The new chamber area spanned the width of the hall and was 32 feet wide, 16 feet deep and 20 feet high, with additional areas at either side on a higher level. The centre section had to be divided into two, which would become the Main and Solo chambers, with the master xylophone and the marimba harp (now to be unenclosed) situated on the left side raised area and the relays and a new enclosed percussion chamber on the right side raised area. (facing stage). Behind the proposed chambers was an ideal room for the blower and another room that made an excellent workshop.

The first things that catch they eye on entering the Free Trade Hall are the three massive baffle above the stage. The one at the rear is actually under the organ chamber, with the front two projecting out below the swell shutters. These baffles are very substantial and there was no difficulty in locating the WurliTzer upright piano on a special platform on top of these.

While the building work was underway, plans were also in preparation for the removal of the roof light over the blower room in order to facilitate the lifting in by crane of the heavy sections of the organ. On Monday, March 18, 1974, a monster crane arrived which effectively blocked the street for most of the day and lead to further minor confrontations with the law. A 120-foot jib was needed to raise the items high enough. The first thing to go up was the first item out of the Paramount, the much travelled upright piano, which this time was driven the right way up the one-way street, after we had disconnected it from the Gaumont WurliTzer. All the other heavy bits an pieces followed, some of them occasioning much interest. One lady seeing a 14-foot section of 16" trunking ascending, wanted to know if we were installing new central heating.

Clever readers will realise that you can spell Hall as "haul," and this part of the project came to be known as "The Tale of The 79 Steps." Financial restrictions meant that the crane was on site for the minimum length of time possible, so all the bits and pieces that could be taken into

the chambers via the stairs went up that way, hence the 79 steps, this because the precise number (engraved on all our hearts) from the street level to organ chamber. Seventy-nine may not be a great number, but it most certainly **SEEMS** a lot when one is hauling something heavy and/or awkwardly shaped, as most organ parts seen to be.

The Free Trade Hall is the home of the world famous Halie Orchestra and is in constant use. As all labour was voluntary and took place at weekends, progress was slow, as anything noisy could not be undertaken when rehearsals were in progress. The new chambers were not finished and decorated until mid-January 1975. However, before then, on December 27, 1974, the console arrived and the major task of getting it into the Hall and then up to its new position 16 feet up in the side circle began. Once again, Manchester's traffic was interrupted by the positioning of a monster mobile crane at the front of the hall. Three forklift trucks were required to handle the job. The smallest one was to assist in the assembly of the two big ones and when they were ready, we began. The crane driver did a superb job in lifting the console and then, projecting the jib at footpath level, lifted it through the arcade that runs in front of the lobby and actually placing it just inside the lobby doors!

Meanwhile, the first fork-lift truck had lifted the second onto the stage. It then returned for the console and raised this six feet onto the fork of the second truck, which then undertook the hair-raising task of turning through 180 degrees, moving ten feet towards the side of the circle, then lifting the console 17 feet so as to clear the edge of the console area. Members of the Technical Crew swear that they went grey in minutes as the console swayed from left to right when the lift was at its maximum! One member, Eric Halsall, went even greyer, as he volunteered to wriggle under the console and connect the flexible wind trunk before it was lowered onto the platform. But at last it was in place and the crew left to resume their Christmas activities.

Anyone walking about in the passages near the 79 steps on the evening of December 23 could have been excused for thinking

that Mr. S. Claus had been partaking of the Christmas spirit a little early and had arrived down the wrong chimney on the wrong night in consequence! In fact, we had roped in (excuse the pun) a member of the caving club to descend the four-foot square service shaft that runs from top to bottom of the hall, to secure brackets for the main cable, and five days later the same member returned to fit the cable into the brackets, it having been placed in position by the sheer physical effort of hauling it up the shaft to the new relay room. Although this sounds like a horrible job, it was in no way as hard as the reconnection of the cable which ran from the relay to the Solo chamber via the roof in the Paramount, for it was necessary to cut through this with a hack-saw in order to remove it. This cable, only half the size of the main cable, with just over 1000 wires, presented one of the biggest problems of the whole installation, for every wire had to be traced from obscure markings in the Relay Room to the actual windchests in the chamber.

It had been the intention to install the traps in an "open" chamber, but subsequent thinking on this led to a flying visit to North London to procure two complete sets of swell shutters, the only remaining parts of a 2/8 WurliTzer left in the cinema concerned. One set of these was fitted to the new percussion chamber in the Free Trade Hall, where they were provided with a switch on the short key rail to place them either under the control of the Solo swell pedal, or hold the shutters in the open position. This arrangement has worked very successfully on the new installation.

At last, at the end of March 1975, work commenced on laying the ground frame in the Main chamber and we felt that the project had really begun.

The installation of the larger off-note chests and the bass pipes of the Diaphone and Bourdon ranks was then undertaken while there was still room for maneuvering. Wind regulators were cleaned and checked, screwed down into position and their springs fitted. Then came the task of placing the two main windchests in this chamber. Much to our relief, once these were in position and their associated wiring run back through the Solo chamber and up into the Relay Room, the cable

was found to be just long enough to reach the relay stacks.

There then commenced what was perhaps the most awkward and time-consuming part of the re-build - the trunking up of the wind supply to the various chests and tremulants. Because these items were almost all in a different relationship to each other from that in the Paramount, the multiplicity of various diameters of metal trunking had to be cut, shortened or extended, and in some cases replaced completely. In the latter case, much use was made of high quality PVC rigid piping and bends normally used in the building trade. When much later it was the turn of the Solo chamber to be trunked-up, matters were even more difficult, as the original layout had the two main windchests set up double decker fashion, with a four-rank chest on top of a six-rank, whereas they now had to be placed at the same level, one behind the other. Not one original piece of trunking could be re-used, and the same applied to the wooden building frame, which had to be re-designed from scratch.

All this activity was accompanied by another important section of the re-build - the re-assembly and wiring of the relays. Month after month of careful, patient work was carried out almost single-handedly by Eric Halsall, who then went on to spend weeks more in tracing and indentifying the 1080 wire of the Relay-to-Solo cable which had been cut during removal. Parallel with this, work was being carried out on the Blower Room, wiring up the 15-hp motor and all the associated control gear, plus the Transformer/Rectifier which supplies the DC action current.

And so, ever so slowly it seemed, the whole complex musical giant took shape. There were one or two days that remained fixed in memory, such as the first time we started the blower and could hardly hear the few bass pipes that we playable for the banshee shrieking of all the wind leaks. And a memorable one when, with the wind leaks sealed, the first two ranks of cleaned and restored pipes were planted and suddenly we were aware that we had an organ again.

Finally, on July 8, 1977, be a remarkable coincidence four years to the day after

the Farewell concert we heard again that glorious thrilling all-enveloping sound, as the organ was demonstrated to the City Authorities who had had the faith in us to accomplish such a difficult task. Without their support and help from time to time, we may well have given up. But all of us present on the day, as Nigel Ogden played classical and theatre music, felt that it had be worth all the blood (we had a few casualties), sweat (gallons of it), tears (well, almost at times) and man-hours (8000 of them) just to hear those golden once more.

The Free Trade Hall project is, without doubt, one of the most prestigious of its kind in Europe, if not in the world, and is an installation that has proved a magnet to all who enjoy the organ as a means of entertainment. The organ is in use an average of an hour a day for all kinds of purposes, and is heard regularly on the BBC as well as on recordings. We now have in the Solo chamber our own Hall of Fame, started when the crew asked a visiting organist to autograph a shutter motor when it was out for repair. This is now a tradition we'd like to maintain, if circumstances allow us to remove a motor, get it signed and return it.

To end this account, when on September 11, 1977, a full house heard the organ officially re-enter public life in the presence of the Lord Mayor of Manchester, the late Dick Simonton, Sir William Downward, the Lord Lieutenant of Greater Manchester, and the Chairman of the Council and many other VIPs, with a message from Her Majesty the Queen, we in the Lancastrian Theatre Organ Trust were, and are, proud to have been associated with the preservation of Opus 2120, England's most American WurliTzer.

Reprinted from an article in "Theatre Organ, July/August 1986.

ORGAN HIGHLIGHTS

Don't forget to listen in to 2CBA-FM every Monday night at 9.00pm for "Organ Highlights" presented by the Theatre Organ Society of Australia with Cliff Bingham as your new host.