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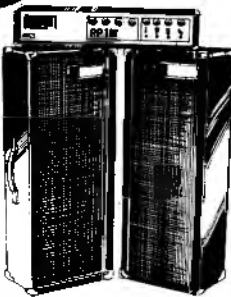
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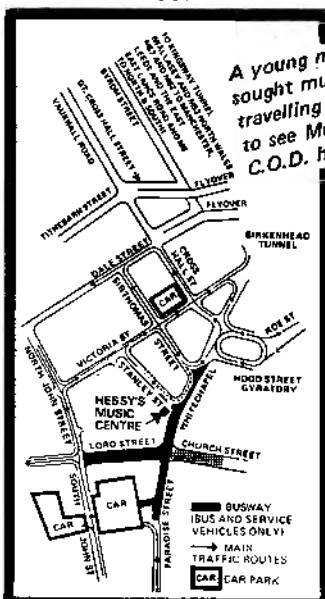
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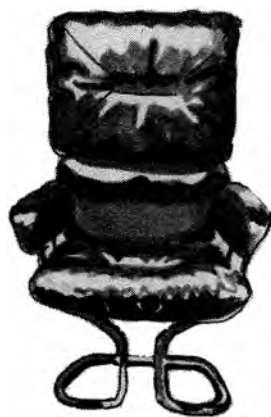
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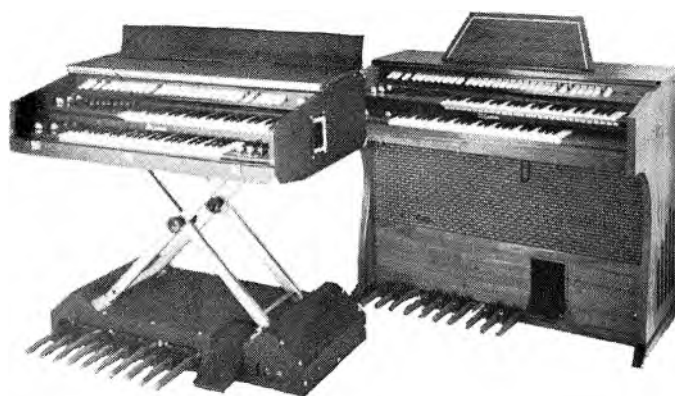
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The anechoic chamber at the Vitavox Westmoreland Road factory

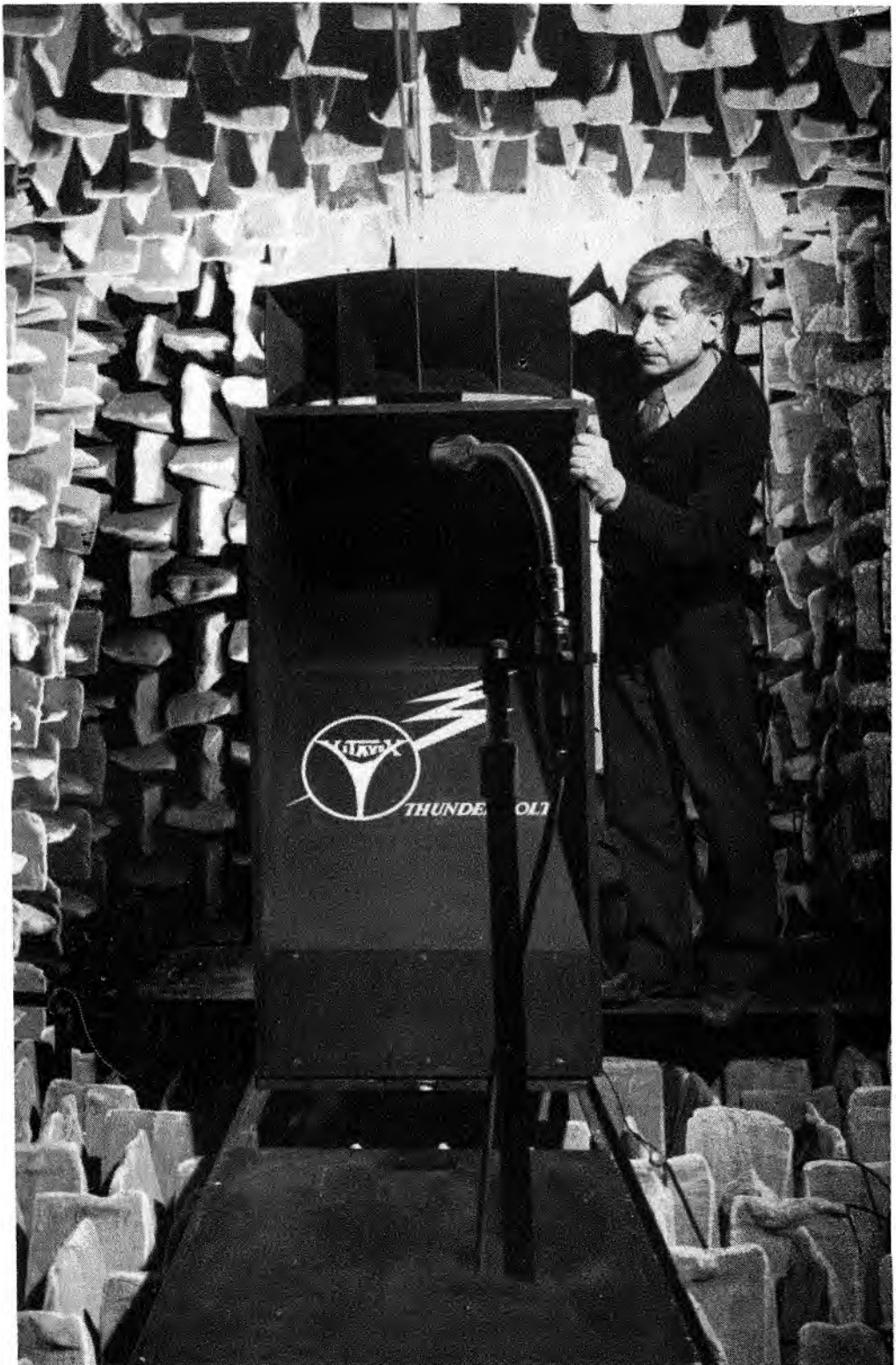
The Thunderbolt Research Story

Vitavox Limited gave top priority to extensive research and field trials before production began last year on the Company's new Thunderbolt loudspeaker sound quality, carried out in the anechoic chamber of the research department of the Vitavox Westmoreland Road Factory, was one important aspect of Thunderbolt research. Trials included an extensive six week field test under every kind of acoustical condition.

From the time the first Thunderbolts came off the production line, immediate home interest underlined the value of the pre-production research policy. Overseas interest quickly followed, with the first large Thunderbolt order coming from Nigeria in January, 1976.

Although these are early days in the Thunderbolt sales story, considerable international interest was shown at the 1976 Frankfurt International Trade Fair, when all the Thunderbolt systems on display were sold on the spot to Germany. Over sixty

enquiries were received from eighteen different countries during the exhibition and once again orders were placed. It is interesting to note that no business at all was done in Germany in 1971. In 1972 the Company exhibited for the first time and now in 1976 is confident of achieving figures twenty times better than those of the first year. Vitavox believes that perfecting a product is a continuous process and further improvements to Thunderbolt are already in the pipeline.



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The Eventide Instant Flanger

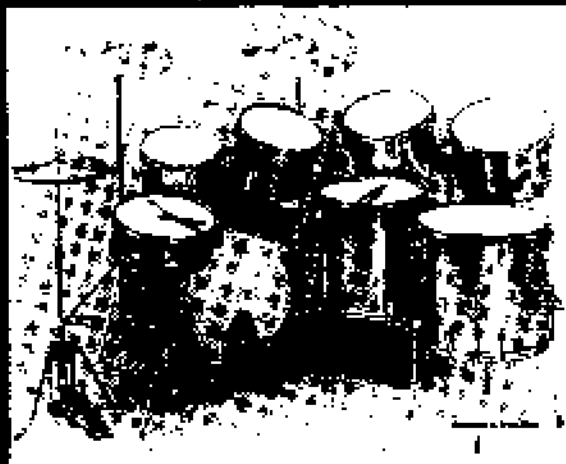
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LETTERS

edited by
Eamonn Percival

Dear Sir: I've got an Eros Les Paul copy which I amplify through an HH IC100 combo. I've also got a cabinet I've made myself which contains two 12P Goodmans speakers.

I now want to do some gigs on bass guitar instead but with as little financial outlay as possible. Can you advise me on buying a bass guitar with a clean, percussive sound, good tuning all the way up the neck and a clear response from the bottom E string. I envisage having to buy a second hand Fender Precision, but is there a good copy available that would save me some cash?

How best can I adapt my present amplification? I am thinking of removing the amplifier top from my combo and building a bass cabinet with a decent bass speaker. I'm not only trying to keep costs down, I'm also trying to reduce the amount of equipment I have to carry around for small dance band gigs.

Jim Scadding,

Worle, Western-Super-Mare

A lot depends on how much volume you're going to need for your dance hall gigs. If it's only modest, you might be able to adapt your existing HH combo. You'd probably need to put a couple of heavy duty speakers in the combo, but at reasonable levels, 60 watts or so, the sound you get would be pretty good, it's only at very high volume levels that a bin or an infinite baffle is really required. As far as the bass guitar goes, a Fender Precision is certainly a good buy and a good copy will probably cost you almost as much as a second hand Precision by the time you've paid the VAT.

Dear Sir: I recently saw a guitar made by Vox which produces organ sounds. The guitar wasn't for sale but I was interested to see that the frets themselves had electronic contacts and the only problem I could see was that you can't bend the strings because of notches on the frets. The guitar also has drum beat and sustain effects. Could you please tell me how much a guitar like this might cost me and is there any way of altering the frets so that the strings can be bent?

D. Ashworth,
Bognor

The Vox Organ guitar was an adventurous instrument launched in the mid-sixties. It was undoubtedly ahead of its time and although it wasn't very successful (it cost over £200 ten years ago) it has now become something of a collectors instrument.

You're right in thinking the frets are the contacts and by the fact that each fret is, in fact six contacts, it's impossible to remove the notches and bend strings. It's was this factor as well as the traditional reserve of musicians which defeated the effort to market these guitars. Despite the fact that a fair number were made, they're hard to find now and if you're buying from someone who knows what he's selling you might have to spend £120, if you're lucky you might get one for £40. Good luck.

Dear Sir: Last June I bought an amp for use with my bass guitar. However, at the time of purchase I wasn't given a guarantee or manual to go with it and the shop I bought it from in Watford mysteriously folded before I had a chance to get these items. I believe the amp is made by Musique Industrie in France although the makers plate simply says, "Power Acoustic Paris." The only other information is the serial number on the front panel which is TPK 409.

I can't find anybody who knows about these amps. Can you tell me where I might be able to get the technical information and where should I get the amp serviced if the need arises.

Monty Klute,
Pinner, Middx

We think we know which shop you're referring to and if we're right you should be so lucky to have lost so little! Many unfortunate customers lost their equipment. As far as we know nobody is importing the gear into this country and you'll have to write directly to MI, their address is: 31-33 Rue De Lagny (94300), Vincennes, France.

Dear Sir: Thanks very much for your guide to the London Pub scene a few months ago. I have taken the trouble to follow up the pubs you suggested and I thought you'd like to hear what's happening now. The Wellington in Archway Road, N6 says it doesn't know if it will be having bands or not; the Lord Palmerston in King's Road has lost its music licence, the Golden Lion in Fulham Road is now being looked after by an agent who doesn't like bands who are too loud, who write their own numbers or play numbers that are longer than two minutes; an agent has now got the Red Cow and it's the same story for the Nashville.

The Hope and Anchor in Upper Street Islington will always listen to a tape and the same again at Newlands Tavern, Stuart Road. The most interested of all the pubs is the Greyhound in Fulham Palace Road. They say they're particularly interested in bands who write their own material and are happy to listen to tapes. We're a three piece band called Axis who like to play our own music and we hope that this information is of some use to other musicians.

P. Sanders,
Bokdon, Hants



Dear Sir: I'm learning to play the drums and I'm rapidly approaching the time when I'm going to be able to buy myself a new or second-hand drum kit, preferably a five-drum kit.

The problem is that there are so many kits to choose from I'm not sure whether I'd be better off buying a cheaper new kit or a better second-hand kit, I've got around £200 to spend. I play mainly heavy music and can you advise me of what sort of cymbals are best.

Malcolm Powell,
Weymouth, Dorset

This is a very hard question to answer as there are as many different answers as there are drum experts. If you're prepared to spend a little on maintenance and don't mind the kit looking a little tatty buy a second-hand outfit. But there are some really excellent cheaper kits on the market. The Maxwin rang. (which we tested last month) comes to mind. These drums will give many years of excellent service but are not quite as robust as the more expensive kits. Try not to economise on cymbals as horrible cymbals will get on your nerves faster than anything else. Zildjian, Paiste are good bets.

Dear Sir: Having read your excellent reports on guitars I hope you will be able to help me. I fell into the unfortunate left handed minority and I have bought several cheap acoustic guitars (£60 - £80) all of which have been converted right handers. I've got problems in playing which are hard to define and I can't detect whether it's my fault or the fault of badly prepared left handed guitars. The problems are mainly in intonation.

I have finally decided to buy a good (£250) guitar so that any problems arising will be my own and not the instrument's. I've narrowed my choice down to three possibles. (1) Tama, (2) Gibson (left handers available with unknown wait) and (3) Guild D25, D35 etc. Can you help me choose.

Chris Kinsey,
Stoke-on-Trent, Staffs

The first thing to understand is that there's no guarantee that an expensive guitar is a good one. There's been a lot of complaints over the last year about expensive guitars being worse than the cheaper copies so be very careful. We've looked carefully at the Guild range and believe them to be excellent value for money. It's important to stress that we haven't tested a left handed model, but if they're as good as the right handers, you should be OK.



Robin Drower

Marshall

I'll tell you what the hardest thing in this business is.

"Finding an amp that sounds good. And sounds consistently good. And if you ask me why I use Marshall, and no other amp, all I can answer is this. It's the only amplifier I've found that comes somewhere near to the kind of sound I'm trying to get.

Believe me, if I could find a better sounding amp I'd use it.

But to my ears Marshall gives me the best sound I can get.

Obviously, there's a lot of variables - like the various effects I use.

And then there's the harmonics of the guitar.

But with a Marshall I can get a nice clean sound from the Strat.

Which I can then distort and get a cleaner kind of distortion, if you see what I mean.

In fact, listen to the Robin Trower Live album - the one we did in Stockholm.

That'll show you the kind of sound I'm into now. And that's what I think it all comes back to - how an amp works on stage.

That's why I use the same Marshall valve 100's in the studio as I do on stage.

And usually with the same tone setting - depending on the acoustics of the hall we're playing in, and the type of speakers I'm using.

Which is the other important point. Speakers. At the moment I'm using 2 x 15 Powercells, and Marshall 8 x 10's. The Powercells give me a thick kind of block sound. And the 8 x 10's produce a sweeter tone, but with a hardness to it that I think is vital.

So, that's what I use, and a few of the reasons why I use it.

If you want to know more there's only one way I can tell you - with my music.

Because that's what it comes down to; Marshall helps me present my music, in my way. And that's all there is to it'.

Robin Trower is pictured with his two Marshall valve 100's, boosted on the input stage, and mounted on two Marshall 8 x 10 cabinets. The guitar is a 1956 Stratocaster.

Please send me information about Marshall. Please send me details of other Rose-Morris products.

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KEITH MOON

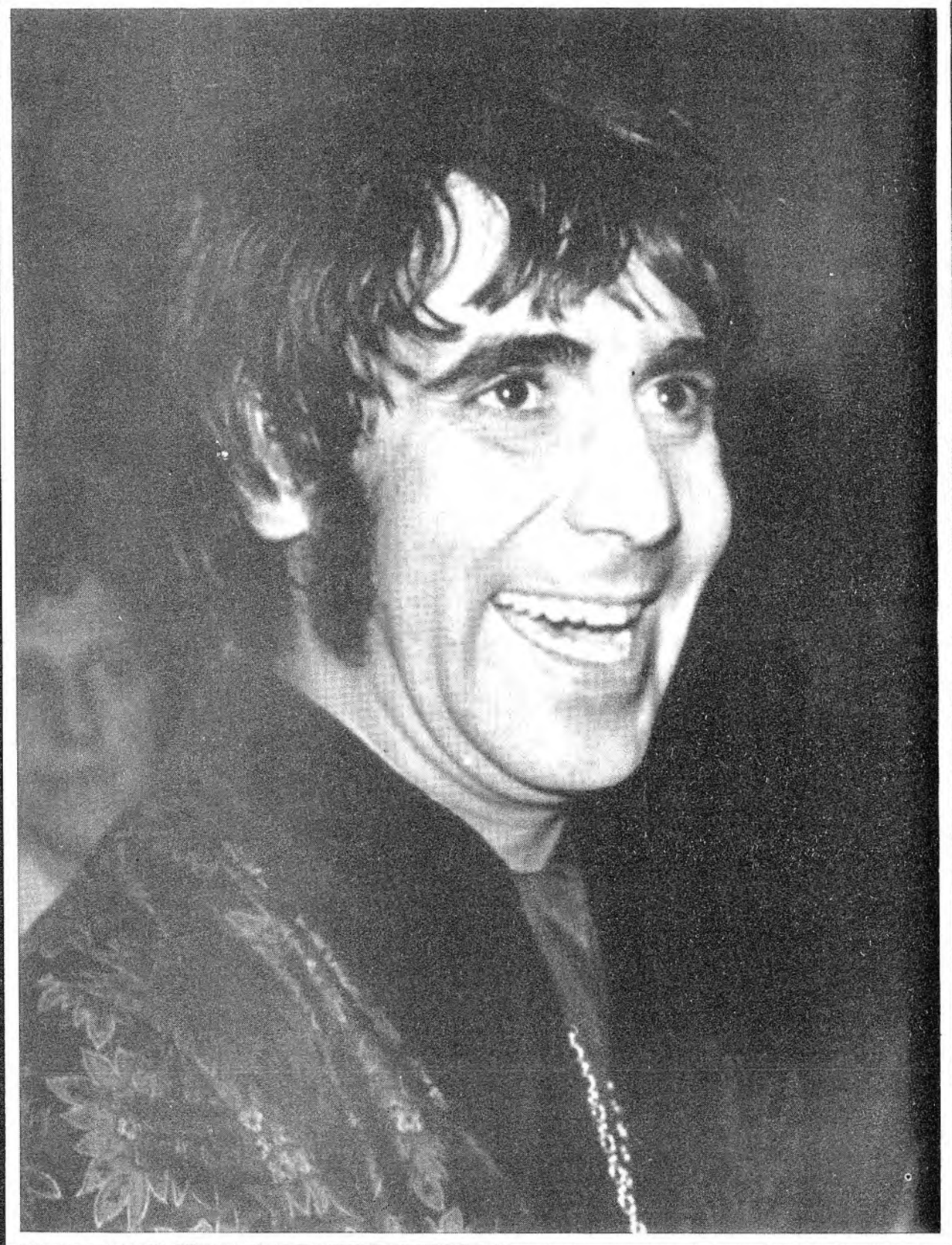


Now known (courtesy of the national daily papers) as *The Wild Man Of Rock*, Keith Moon is a man of many talents. First and foremost, he is drummer with *The Who*. Onstage, behind a gigantic Premier kit, he snarls and grimaces while playing, with apparent ease, things other drummers strive for years to perfect. In the mod days of "I Can't Explain" and "Anyway, Anyhow, Anywhere", he used a single kit and changed to a double three years later adding, along the way, extras like timbales, tympani and a host of tom-toms. Some years back, the *Melody Maker* credited Keith Moon with "revolutionising rock drumming" — an accolade nobody would disagree with. It's standard procedure for a drummer to accentuate a crash on a cymbal with a bass drum beat — not so with Moon. He thinks nothing of doing a break on cymbals alone. Early recordings were saturated with thudding bass drum, ringing tom-toms and sizzling cymbals. As the years went by and recording techniques developed, Moon's drum sound got better and better — no easy job for an engineer, having a kit of such gargantuan proportions to deal with.

Apart from drumming, Moon has also developed as a "personality". He seems to dislike boredom intensely, and does all in his power to fend it off. This tends to lead to "antics" like smashing up hotel rooms, and driving Rolls Royces into swimming pools. "Moon stories" abound in showbiz circles, a few of them occasionally making the daily papers. On my way to meet him, the cab driver remarked "Keith Moon? He's that mad geezer ain't he?". Without a doubt, he is now a household name. A name some people revere, a name some people fear — but still a name.

BBC producer John Walters saw a certain flair in Moon for comedy and produced a six-part radio series featuring Keith Moon in a variety of roles. Doors in the film world also opened for him. He had a small part in *200 Motels* with Frank Zappa, he played the part of David Essex's drummer in *Stardust* and, most recently, was featured as Keith Moon and Uncle Ernie in Ken Russell's film version of *The Who's "Tommy"*.

Last year saw the release of his first solo album *The Other Side Of Keith Moon*. He is currently working on his second with Steve Cropper, guitarist with Booker T. and The M.G.'s and a fine producer in his own right. Now a tax exile, allowed only 60 days in the U.K., Moon stopped off in London for a day on his way from Los Angeles (where he now lives) to Europe (to start another Who tour). I traced him to the fourth floor of *The Royal Garden Hotel* in London, and found him a genial host and more than willing to talk about his first love, drums.



What does your kit consist of?

Well, it's a Premier kit for a start. The snare is a Gretsch, but the rest is entirely Premier. There are four double-headed tom-toms — 12", 13", 14" and 16". Then in front of them are five single-headed tom-toms which are 12", 13", 14", 16" and 18". A lot of people might write in and say they don't make a 15", and the fact is they don't. But they did for me. That's the top line. On the right, there are two double-headed tom-toms which I think are 18" by 18", and two 16". Then, mounted on stands, there are two 14" open-ended drums and two timbales. On the left, there are two tympani and behind, a Paiste 30" Chinese gong. Two bass drums and that's about it. Cymbals ranging from left to right are 22" ride, 20" crash ride, 14" splash in the centre and then a line of three — 18", 20", and 22". At the back, at an angle above the timbales, I've got a Chinese cymbal. The high-hat has two 15" cymbals. I keep that permanently closed. *Do you tend to play more on open cymbals, then?*

Yeah. With The Who, because there are only three actual instruments — guitar, bass and drums — I tend to play more like that. The hi-hat isn't completely closed — there's about 1/4" gap so you get a "sshooosh" sound. Then, I can come off that on to the 20" crash ride, avoiding the 22" ride, and then down the three and onto my main cymbal which would be the 20" crash ride — I tend to use that more. But with a kit as large and as varied as that, I've got all I need for various numbers. When we do "My Generation" for instance, which is like, belting out, I've got a vast amount of... heavy guns to use. Conversely, if we're doing something from "Tommy", like the "See me, Feel me" bit, I've got my orchestral effects with the tympani and I can use beaters on the tom-tom section. So whatever is being played, I've got the drums to handle it.

You've had a double kit for a long time now. Do you or could you go onto a single kit ever?

No, not really. With the left foot, I can do more work now. If necessary, I can work a bass drum, a hi-hat and a tympani with my left foot. At the same time, I've got a beater which is suspended above the gong, so for instance if we go into "See me, Feel me" I can hit the tympani and the gong at the same time, and make a "statement" on the bass drum so as the tympani dies down, the gong is sort of shimmering out and you get a very wide range of frequencies. I look at it like four kits in one. If I want it to be just bass drum, snare and high-hat, then it can be that. If I want it to be the "Ginger Baker" thing with the tom-tom and bass

drum rolls, I can do that. If I want it to be symphonic, I can do that.

It's so adaptable and with our repertoire, it's necessary. To get the colour, you need that. They're not there so I can say "I've got the biggest kit in the world" — it's there for a very good reason. I can do the symphonic bit and I can do the rock'n'roll bit. I can handle any musical situation that arises. It's built up like this, purely from the numbers we play.

Have you ever seriously studied drum rudiments?

Yeah, and it doesn't... I mean it's good for technique. It's just exercises really. I mean, how often you do use a paradiddle in a show? Triplets, flams, mummy-daddy rolls — certainly, I don't find it necessary. I can do it, but I don't really find it necessary to employ it. They're all good wrist exercises, but as regards practical playing... I wouldn't *not* recommend it. I could say certainly it's good exercise for wrists and for co-ordination, but as far as fitting them into a pattern goes — it may or may not work. *Do your wrists feel "tight" after a performance?*

No, not really. I work from the shoulder. Like a whiplash thing. It doesn't put too much of a strain on the wrists.

Do you come off stage physically tired?

Oh, yeah. It takes me an hour to get my breath. After a show, I just sit and I don't talk to anybody. It's different during the show. When you're playing, you're not aware of the physical side of it, because you transcend the physical. You're thinking in terms of the musical side of things, and the body just does things that, if you thought about doing them, would tend to sound very wooden. To get it fluid, you must detach yourself entirely from thinking about playing the drums.

I try to involve myself entirely with the music, so only then can the drums become part of the music. When I start to think, then it becomes a drum solo. I'm lucky that I have the talent to function physically while my consciousness is elsewhere. I'm listening to what Pete's doing, I'm listening to what John's playing. I don't have time to think of what I'm doing. I don't think a drummer has time to think about what he's doing. He just does it.

Do you ever set up a kit at home and play?

No, I never do. Some people ask me why don't I do a drum solo — that's the most boring thing in the world — and it's very similar to that. If I sit behind a set of drums and there's a loud record playing in the same room, then I'll play along with it, but if there's just a kit and

four walls, then no way will I play. That's why I believe a good drummer must be aware of what the rest of the band is doing. He must be aware of the nuances of one musician against another. If someone or something is lagging behind, then give it a kick in that direction. I'm about to get a new house, so then I can set up a kind of music room and have it sound-proofed and play away with records or something, but I never play away on my own.

What are you up to outside of The Who?

Well, Steve Cropper and myself are doing an album. I'm signed for three altogether. Steve Cropper is producing and playing on it. We've used artists like David Bowie, Ron Wood, Klaus Voorman, Danny Kootch, Jesse Ed Davis. Backing vocals by David and Harry Nilsson.

What kind of material?

We're doing a couple of Randy Newman numbers. I went through Warner Brother's publishing department and picked up 40 songs. I went to Capitol and went through their place and picked some songs up. Steve and I have completed three tracks and we've got four more that we're working on.

Are you getting more used to singing now?

Yeah, well, Steve's a great help in that direction. He gives me a great deal of confidence. I was never very confident as a singer, and Steve just says "Get in there. Stop pissing around saying you can't sing. You can sing." He's got a very positive attitude, which works on me. We've got a very good relationship. *What about the comedy album you were going to do?*

Well, it's by no means dead yet. It's just that comedy is one of the most difficult art forms to do well. If you write something you think is funny on the spur of the moment, and you come back into the room ten minutes later and it's still funny, then it's O.K. If you wake up the next day and it still cracks you up, then it's in the script. Now, that doesn't happen very often. It's got to be funny whatever circumstances you're in. Unfortunately, the main thing is time. You've got to work at being funny, and it takes time.

Do you think your "strange" ways detract from people respecting you as a drummer?

What position was I voted in the Sounds poll? What position was I voted in France, the World's Top Drummer for the last ten years? (laughs)

Most people who vote in polls are fans and record buyers. What about other drummers? Do they take you seriously?

I think so, yes. They'd be silly not to. *Do you listen to a lot of drummers?*

Well, I don't listen to a hell of a lot of drummers. I like the 'thirties drummers like Gene Krupa, who is my favourite. Sonny Payne is tremendous as well. *Do you feel you work well with John Entwistle onstage?*

Yes. We can change midstream through a number because it's a natural change. It's something we both feel. You develop this empathy.

On a couple of numbers onstage, The Who use a taped synthesizer part. Is it difficult to cue and keep time with?

No. What I do is keep a sort of metronomic beat, because a synthesizer is metronomic. Once you start it and you're working with it, you've got to pull yourself in a bit. Be a bit stricter and tighter. The difficulty was when we first started using it, I used to try to slightly increase the tempo where I felt it needed a lift and then bring it back, but of course you can't do that with a synthesizer. You're stuck with this metronome. The only other way I could do that was with the drums. When I felt I needed a lift, instead of speeding it up a bit, I'd change the sound of the drums by using something else. The effect would be there — the same as speeding up.

What do you get through the cans?

I get synthesizer and I get straight chords. The tape is played out on stage as well, so I get the same as comes out on stage. The chords are mainly for Pete, so he knows where he is.

It is very difficult to explain in words, because it's a complex matrix. The machine itself is mathematical. There's no lead-in, so all I do basically is keep in my head the phrase where I come in. It doesn't make sense to come in where I do on the cans, but overall, it does... hopefully. The synthesizer dictates the tempo all the way through. Every number I use the cans on, is metronomic, totally.

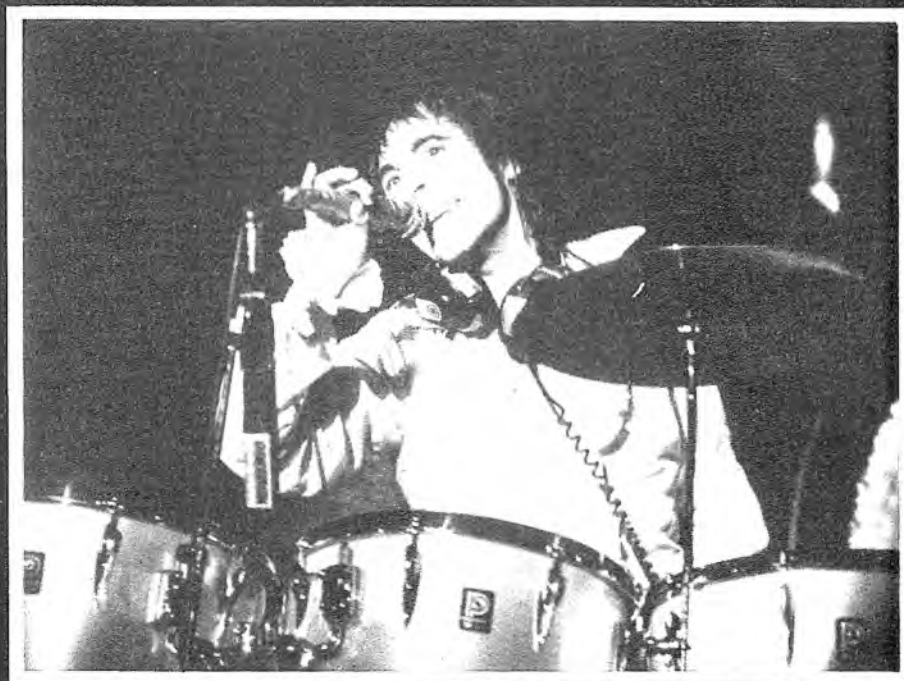
Although it obviously wouldn't be commercially viable, would you like to do some smaller clubs with The Who?

Well, I don't think our last tour was commercially viable (laughs). I came out at the end with a profit of £46.70p — really! That was the English tour of course. That's not unusual for England. America's a different story — thank God. But, I mean, I think it's a nice thought, but I think a lot of people would get very pissed off. We tried playing smaller halls because they were acoustically better, on the last tour and a lot of people broke the doors down. It's a nice idea, but a bit of an impossibility.

If The Who ever split or stopped doing live gigs, would you still want to perform live?

Well, consider the alternatives. (Pauses) Stuffed in a museum? No, really, the possibilities are boundless.

MOON



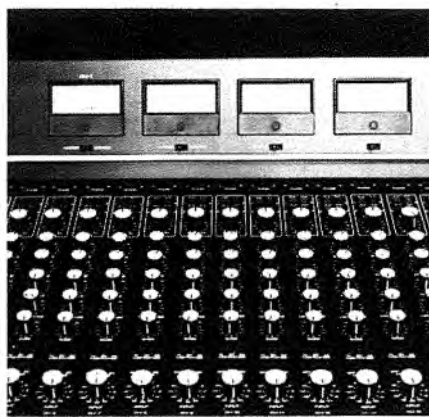
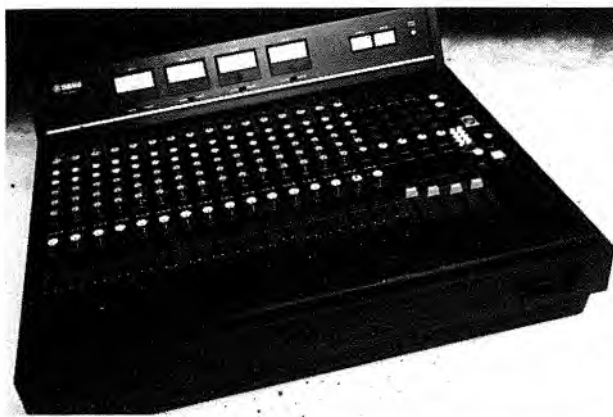
"I'm lucky that I have the talent to function physically while my consciousness is elsewhere"

TEST ON: *Yamaha P.M. 1000*

DATE: *March 76*

PRICE: *Approx £2,000*

TEST BY: *Bruce Gibbs B.Sc.*



INTRODUCTION

The appearance of this 16 channel quadraphonic mixer is very impressive. It has a beautiful rosewood outer frame, an anodised sectional modular control panel area and a padded arm rest along the front edge of the unit. The rear section is higher than the main control area and carries a VU meter for each of the four output channels and two extra meters for the Echo/Foldback channels.

Each of the 16 input channels has an unusual design of slider volume control. It consists of a normal rotary potentiometer, the wheel of which has a serrated edge. Underneath the control is a friction surface on which the wheel runs when the slider knob is moved. The controls thus have a longer travel than conventional slider-pots, giving the control a positive, smooth feel.

CONSTRUCTION

The basic construction consists of a vinyl covered wooden frame and unit floor into which a set of standard sized modules are fitted. Each input module comprises an anodised aluminium frame and front panel section. A phenol bonded paper printed circuit board which carries 13 transistors and two diodes, in addition to six ferrite core chokes used in the tone control circuits is fitted into this frame. Three smaller PCB's are used to carry three pairs of switches. Four of these switches are push-button output channel selectors which work with a quadraphonic (4 ganged) "PAN" control.

Each input channel has the following controls: a volume slider, calibrated 0 to 10; sensitivity switch, calibrated +4 to -60dB.; bass control, calibrated +10 to -10dB.; mid-range control, calibrated +10 to -10dB.; treble control, calibrated +10 to -10dB.; Echo 1 "Send" Volume, calibrated 0 to 10; Echo 2 "Send" Volume, calibrated 0 to 10; "PAN" (Stereo Balance), calibrated 1.3 to 2.4; a Midrange Frequency Sensitivity switch, selecting between 1KHz., 2KHz., 4KHz.; a "Bass Cut-Off" frequency selector switch which selects between Off. 40Hz. 80Hz.; a "CUE"

selector button and a phase (of input signal) reversal switch.

They have not used resin bonded glassfibre printed circuit boards and many of the components are of domestic (commercial) quality; we would have hoped to see professional quality components used. The "PAN" control is particularly troublesome. All the potentiometers are physically very small and likely to cause problems.

The monitor/headphones and foldback module carries the headphones volume control and channel selector switches, as well as the master volume controls for the two foldback/echo facilities. It contains two large PCB's and a pair of small ones on the switch-button assemblies. One of the large boards carries two separate amplifiers for the ECHO/FOLDBACK system whilst the other board mixes and amplifies the stereo signals directed to the ear-phone (stereo-jack) sockets on the front of the mixer.

The talkback module is also mechanically similar to its predecessors but a talkback volume control, an XLR microphone input socket and a push-to-talk button. In addition, it has an oscillator which can be set at 1KHz or

7KHz at a fully adjustable volume level. The talkback has a set of four output channel selectors so it can be used for talk-overs and commentaries.

Alternatively, an entirely separate talk-back amp and speaker system can be used. The module contains a microphone input transformer and an isolation transformer.

The power supply is housed below the raised section at the rear of the unit and is well built. It comprises a large steel chassis with a very workmanlike mains transformer of more than adequate size mounted on it. The power supply is fully regulated for all the modules plus a special power source for driving condenser microphones. The PCB also carries two 2A fuses in addition to the AC and pair of DC fuses

mounted on the back of the mixer. The mains is introduced to the unit by means of a 3 pin non-reversible Euro-connector and the power switch is situated on the raised front panel.

An impressive array of input and output sockets is spread along the back of the mixer. They are: XLR recessed sockets 1 to 16, XLR Subsidiary inputs ch1 to ch4., XLR playback (tape) inputs ch1 to ch4. Main line out A. XLR ch1 to ch4, Main line out B. XLR ch1 to ch4, Monitor outputs XLR ch1 to ch4, Echo outputs 1 and 2.

In addition, a set of standard telephone jack sockets allow the introduction of a patch-cord panel between the masters and monitor modules and the appropriate Direct/Playback switch.

PERFORMANCE

Parameter	RESULT	TEST CONDITIONS	COMMENTS
Maximum Gain	+75.2dB +75.8dB +43.0dB	Input line - outputs A & B Input to Echo output Input to master output	More than adequate for all normal purposes.
Maximum Output	+25.3dBm. +23.0dBm.	(11.6 V r.m.s.) on line A & B On Echo output	Good Good
Input Overload margin	35dB.	i.e. Input saturates @ -25dBm. on -60 input setting	Good
Residual Noise	-63.0dBm.	Output gain = max. Input gain = 0.	Good
Noise referred to input	-120.5dBm.	Measured wide-band with equalisation set flat.	A restricted band measurement would result in a 5 or 6dB. improvement.
Distortion	0.07%	Total harmonic distortion @ 1KHz. and +10dBm. output level.	
VU Meters	0. VU = +4.5dBm. 0. VU = +4.0dBm.	Main Meters Echo Meters	
Tone Controls	+14dB. to -14dB. +16.5dB -15dB. +15dB. -15dB. +14.5dB -15dB. +13.8dB. -15dB.	Bass at 100Hz. Mid-range at 1KHz. Mid-range at 2KHz. Mid-range at 4KHz. Treble at 10KHz.	Good There are three choices of middle range.
Headphone Driver Amplifiers	½ watt + ½ watt	Into 8 ohm loads.	Power a plenty.

CONCLUSION

The YAMAHA PM 1000 is a very good mixer unit, suitable for studio use.

The carrying handles are not very useful on a unit of this weight and it would need to travel in a proper case if it were going to survive a life on the road. We were very impressed with the high standard of workmanship and the easy-to-service design of the PM1000. It's just about the quickest unit to open we've ever come across.

The design of the volume control sliders is brilliant and is likely to give better results than the conventional slider pots but we were very unhappy about the use of domestic (T/V, hi-fi) quality rotary pots and some other components. In particular, we didn't like the phenolbonded paper printed circuit boards. Resin bonded glass fibre would have been much better. The PAN controls are clearly not good

enough and will have to be improved if professional studios are going to buy the PM1000.

In contrast, the channel selector switches were very well thought out and the unit as a whole performs very well. Obviously a great deal of design effort has gone into this system and it deserves to sell well. The power supply is well designed and should never give trouble. The use of transformer coupling of the inputs and the ability to reverse the phase of the incoming signals are both luxuries that are well worth having.

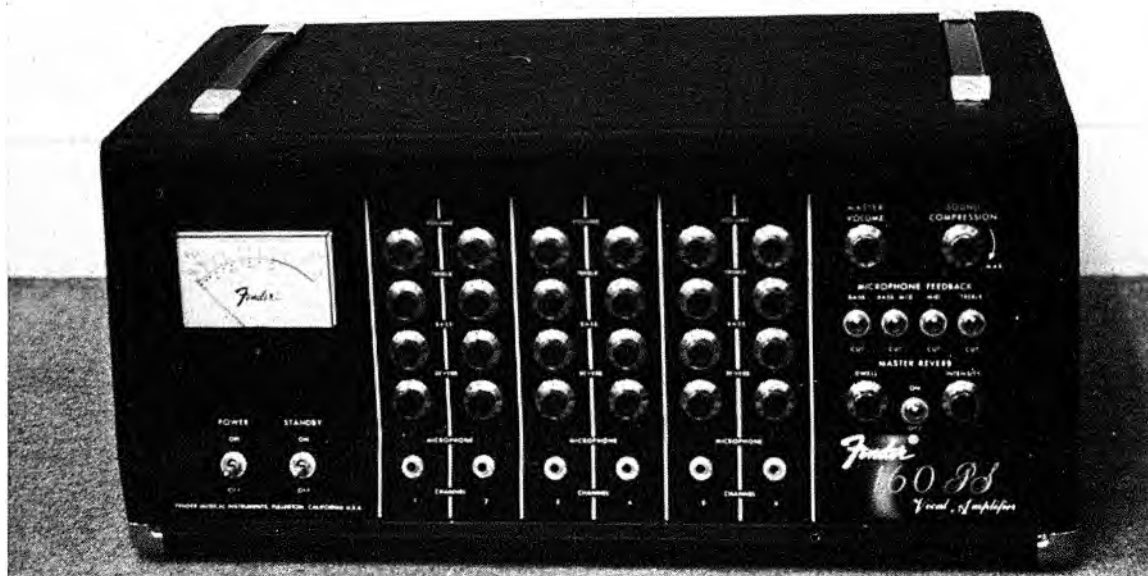
Every input has a 'CUE' button which functions as a pre-fade listen facility. The Yamaha PM 1000 comes complete with a large dust cover made of plastic vinyl and a very comprehensive operations manual.

TEST ON: *Fender 160 PS Vocal Amp*

DATE: *March 76*

PRICE: *£547 Ex VAT*

TEST BY: *Mark Sawicki M.Sc. (Eng.)*



INTRODUCTION

Made by Fender Musical Instruments, this piece of equipment has a six microphone input channel mixer, a 160 watt RMS (350 watt peak music power) amplifier and a reverb unit. The manufacturer recommends the use of a special loud speaker system for maximum output power (RMS) i.e. 4 x 10.6 (ohm) speakers — Model SC. 3 — 10 Sound Columns, also 2 high frequency horns — Model MF 5 which increase the treble response and acoustic efficiency of the system.

The 160 PS is specially designed and suitable for all universal vocal purposes. Although high impedance microphones are recommended, low impedance models can be used, supplied with the plug-ins matching the relevant transformers.

The front panel consists of six input channels, each with its own control — Volume, Treble, Bass and Reverb. The master control simultaneously controls the total output of all six channels of the amplifier. The sound compression control, based on well-known norms in Vocal amplifiers between the feed-back effect and the bass frequency response, controls and limits the loud bass signals, while the Master Reverb regulates the reverb sustain and the amount of reverb added to amplifier output. There are two on/off switches on the front panel and a socket which provides a foot control for much more convenient regulation of the reverb and is an excellent design feature.

Controls supplying the power are found on two on/off switches, one for actual on/off and the other a standby switch that controls the valve heater circuit, a design feature which is extremely useful if the system has to be used

straight off, without the usual "warm-up" period.

The microphone feedback control constructed on anti-feedback filters has four switches for Bass, Bass-Mid, Mid, and Treble. This is a highly professional control system which allows for fine adjustments with the co-operation of each channel, thus gauging the best performance and minimising the feedback.

For "Live" work conditions on stage the VU Meter provides an automatic indication of the actual amplifier output with an illuminated light for quick orientation.

On the Rear Panel of the 160 PS, there are two output jack sockets, each capable of being loaded with 2 x 5.3 ohm Speaker Columns rated at 80 watts RMS, and since I didn't have the recommended SC 3—10 Speaker system, for the purposes of this test I used a speaker system rated 200 watts RMS with a load output of 5.3 ohms and 2.65 ohms. The result was very rewarding and proves the amplifier can be used as a universal part of any vocal system and not just with the recommended set of Speaker Columns.

The Auxiliary Input/Output socket on the rear panel, accepts tape recorders or other amplifiers with a greater input impedance than 10k. There is also an auxiliary volume control. A Hum Balance Control is also present here for the minimization of Hum.

A socket enclosing a pre-set potentiometer is situated on the rear panel and is marked 'Output Tubes Matching.' This is a fine adjustment control for matching the output valves after their replacement.

CONSTRUCTION

The Amplifier consists of the pre-amplifier (electric valves 7025, 12AX7A), the Reverb unit (12AX7A, 12AT7, 7025), and the Power Amplifier (6V6 GTA, 010309) Tubes which are specially designed, paired and selected for the 160 PS.

The Anode voltage is approximately 700 volts. The achievement of good symmetry and linearity is due to the use of a bifilar driver/output transformer. Perfect stability and gain control are realised through the use of a deep negative feedback system.

Solid-State power supply, fully protected; 5A/250v and also a low inertia thermal fuse. The mains transformer is wound for use on 117-120v/60Hz or 220-250v/50Hz. All the tubes are mounted on a metal chassis containing the driver/output and power transformers too; a VU Meter, Professional class input sockets and all service controls are fitted in the front panel which is made of black anodised aluminium. The cabinet has been con-

structed from plywood and nicely finished in a dark vinyl coating. Heavy duty metal corners and two handles are present for transportation.

The quality of soldering, general workmanship and design is good and clear, and the 160 PS is the best sample of classic P.A. technology I have seen. All electrical components are of good quality and well-planned. However, the system is supplied with a rather peculiar instruction manual, in that it lacks the exact and detailed information for setting up and servicing the equipment that is required by musicians and technicians. There is also misleading information concerning the Ground switch (control of polarity) which isn't present on the actual product selling in the U.K. — but God bless the engineer who decided to omit this beautiful gimmick from the amplifier.

The product is under warranty by the manufacturer to be free from defects for a period of one year from date of purchase.

PERFORMANCE

	RESULT	TEST CONDITION	COMMENTS
Specific Power Output (R.M.S.)	285W.	@ 10% T.H.D. 2.65 Ohms	Normal level by any valve S.P.O. standard 4 speakers connected 2 (see introduction)
	292W.	@ 10% T.H.D. 5.3 Ohms	
	206W.	@ Onset clipping 2.65 Ohms	
	218W.	@ Onset clipping 5.3 Ohms	
Total Harmonic Distortion (T.H.D.)	4.95%	160W T.H.D.	Good for a P.A. valve amplifier
	4.82%	100W. at	
	0.42%	10W. 1000Hz. into	
	0.23%	1W. 2.65 ohms.	
Tone Range Control	Bass 28.78dB. swing	@ 50Hz.	Good
	Bass switch 29.25dB. swing	@ 50Hz.	
	Treble 20.55dB. swing	@ 10Hz	
Signal To Noise Ratio	Better than 70dB.	All gain — zero tone control — mid. position Microphone anti-feedback filter — on — all four position.	Very good
Capacitive Load Test	OK	2 uF 6 ohms.	
Open Circuit Stability Test	OK	Master, gain control — max tone control — mid. position. output dummy load — removed.	
Multi Input Priority	Satisfactory on actual experiments	Six channels test + variations	Very good
Microphones Anti-Feedback Filters System Test	Frequency response very flat in all four positions	50Hz. 300Hz. 800Hz. 15KHz.	Poor frequency response but can be useful in practice.
Short Circuit Test	2 min.	Double protection circuit (a) Thermal Fuse (b) 5A/250V.	

CONCLUSION

The electrical and acoustic performance, construction and design work are very good. The positive simplicity of the control panel should please even the most critical P.A. connoisseurs. It provides an excellent combination of amplifier, Reverb and six channel mixer designed to harmonise perfectly. All the tests carried out produced enormous power and low distortion for this type of valve amplifier construction, and the signal to noise ratio is

extremely good, so the 160 PS Amplifier would prove to be an asset in any vocal system.

On subjective tests with a D 190JE (AKG) microphone, the amplifier produced a very good and pleasing sound, the reverb unit worked most efficiently for this type of reverb construction, and the reverb effect was completely undistorted, exceeding my expectations for the dynamic tonal characteristics and general quality of sound. ●

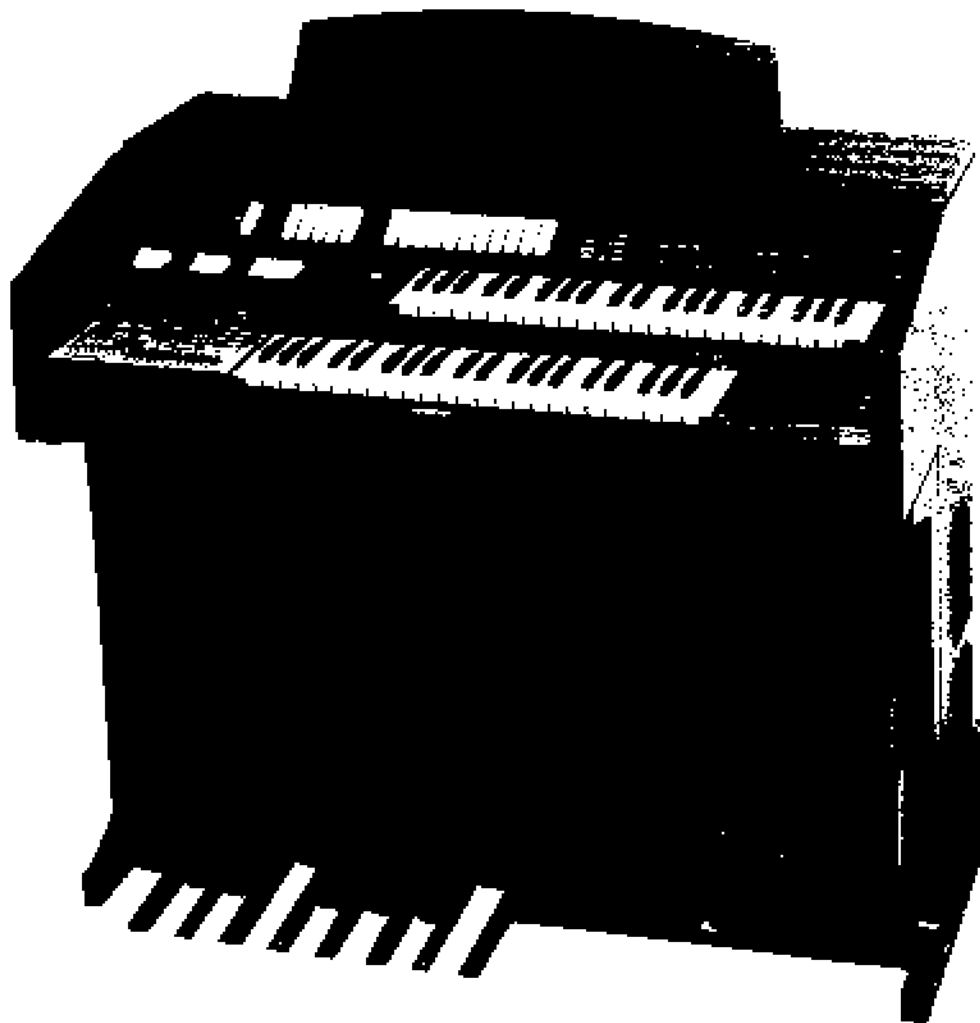
KEYBOARD CHECK

TEST ON: *Welson Prestige 350L*

DATE: *March 76*

PRICE: *£1072 Ex V.A.T.*

TEST BY: *George Gibbs*



INTRODUCTION

The Welson range of organs and synthesizers are imported into the U.K. by Woods of Bolton in Lancashire.

This model, the Prestige 350L, is a two manual spinet with a one octave pedalboard and a built-in Leslie speaker. It has a horseshoe shaped "Theatre Organ" console and a wide variety of theatrical sounds to match.

UPPER MANUAL

3½ Octave (44 note) keyboard. F to C, with overhanging keys.

Upper Manual Voices

Flute tabs voiced at 16Ft., 8Ft. and 2 2/3Ft; Voiced tabs pitched at 16Ft; Bass Clarinet 8Ft; Clarinet, Oboe, Vox Humana and Strings 4Ft; Piccolo and 2 2/3Ft. Nazard.

Upper Manual Percussions

These are not percussion voices as such, but an enveloping facility which adds a percussive "attack" to the beginning of whatever voices have already been selected. It behaves in a staccato-

responsive manner and only works when a staccato or separate (non-legato) note or chord is played.

The effect can be selected separately for the Flute and Orchestral voices but share the attack amplifier and its associated Attack Duration time control.

Upper Manual Brass

Some of this organ's upper manual reed voices are directed through an entirely separate tone filter and pre-amplifier channel. The tone filter is special, in that it is variable and can be triggered to give an automatic "wah-wah" effect on each staccato note played or can be repetitively triggered to give a very unusual "Tone-Vibrato" effect. There is a built in oscillator which has two pre-set speeds used to generate this effect.

LOWER MANUAL

A 3½ octave (44 note) keyboard ranging from F to C.

Lower Manual Voices

8Ft. Voices: Flute; Clarinet; Diapason: 4Ft. Voices: Flute; Clarinet.

Upper Manual Sustain Voices

Confusingly called the "Special Effects", the sustains are voiced as follows: Piano; Spinnet; Guitar; Banjo.

PEDAL BOARD

A 13 note (one octave) spinet pedalboard ranges from C to C.

Pedal Voices

8Ft; 8Ft. + 16Ft.

Pedal Facilities

Pedal Sustain off/on. Pedal 'Attack' — Slow/Bass Guitar.

ORGAN FACILITIES

Like normal theatre organs, the flute or tibia voices are separately directed to the various loud-speaker channels. On the 350L, the separation is not of the flutes alone but includes in the same channel the Orchestral voices of the upper manual and all the lower manual voices. This leaves the sustains and special effects to be controlled by a second output channel selector.

Built-In Loudspeakers

A pair of 12 inch (30 cm) loudspeakers act as the main Straight speakers for the organ and also handle the pedals.

There is also a single 8 inch full range Leslie speaker complete with a two speed motor system and a rotating baffle. The reverberation channel has its own 6 inch speaker fitted to the inside cabinet structure adjacent to the Leslie.

Volume Controls

A set of four volume control sliders are provided to balance the various sections of the organ. One controls the lower manual, one the pedals and the other two control the flute and orchestral voices on the upper manual. A fifth slider pot is used to control the level of reverberation added to the overall sound.

Reverberation

This is created by means of an 11 inch Italian reverb necklace and it has its own little amplifier built-in to drive the 6 inch speaker.

Swell Pedal

A dual channel swell pedal, working on the photo-electric cell principle, is used to control the overall dynamic range of the organ.

Sound Effects

On the swell pedal, there is a small side-switch which controls either of two very separate functions, according to the tabs selected.

(1) A Hawaiian Guitar or Trombone glide effect drops the pitch about a half-tone and then restores it when the switch is released.

(2) When the automated accompaniment is used, one of its facilities allows a single note to be used (on the lower keyboard) to select the root note of a full chord, rather similar to the chord buttons on an accordion.

Vibrato

A warm vibrato is available at two speeds selectable on a fast/slow tab. A nice refinement included here is the Delay-Vibrato which simulates a violin.

Leslie Speaker Selection

Previously, the voices and the special effects (including the Brass voices) are sent through separate switches to either the main or the Leslie speaker, enabling one to create some nice stereophonic effects. There is also a motor switch to control the Leslie's motors.

FAB Unit

The FAB automatic accompaniment system is best looked at in four sections.

(1) An automatic electronic drummer with 19 different rhythms. This is the main unit which drives the entire auto-accompaniment unit.

(2) The Automatic Bass can be selected a tonic/fifth bass pattern or more complex bass figures if desired. The bass figures vary with each rhythm.

(3) Automatic Chord Rhythms for manual or automatic operation. This section can be used to generate complicated syncopations between the bass pedals and the lower manual chords (which are just sustained by the player). The syncopations also change with the rhythm chosen.

(4) The Baroque & Fantasy Chords section. Rather special, it gives an arpeggio-ed chord with an electric piano or rhythm guitar sound, depending on whether you set it for long or short sustain.

Tempo

A slider control to set the units speed is clearly labelled Tempo and a switch can be used to decide whether the machine is to start when set-up or when the first lower manual note is played.

AUTOCHORD

I think it very confusing to have similar names for two very different facilities, as is the case in the 350L. The Rhythmic Chords facility is designed to syncopate the lower manuals organ sound. The other facility, the Autochord, is similar to an accordion's chord-buttons. By playing one note, you get out a full triad. The swell pedals side-switch is used to select a major or minor chord. No augmented or diminished chords are catered for and, in my opinion, this greatly diminishes the gadgets usefulness.

There is no doubt, however, that the facility will help sell organs to absolute beginners.

Auxiliary Outputs

Two output sockets are provided on this very comprehensive instrument. A rehearsal earphone socket enables one to practise in private without annoying either family or neighbours. An additional output is provided to drive an external amplifier. No external Leslie socket is provided.

AUTOCHORD

Basically sound and strong, the mechanical construction is very good. I have some reservations about the way that the works are dotted all about the inside of the cabinet instead of being built on to one main chassis, but all the various modules seem to be well made and adequately fixed.

Console

The cabinet is strongly made of veneered chipboard and plywood and has a traditional horseshoe design.

Tabs

Even though the tab switches are first class, I was not very impressed by the cheap looking plastic tabs. A slightly more expensive tab-knob would go a long way towards making this organ look posh.

CONCLUSION

This is a very comprehensive Theatre Organ with ample volume, lots and lots of facilities and a good appearance.

I found some nice jazz sounds and a few novelty effects. It does not have the meaty sound that most rock musicians look for but it can be used for some soft rock with careful setting up. ●



GUITARCHECK

Stephen Delfr

EKO El Gaucho Jumbo

£91.96 Ex VAT

The maker's catalogue describes this as a "Chitarra Gran Concerto Jazz," which virtually translates itself, but I am still not entirely sure what it's for. It is loud, brash, a little insensitive, and would do nicely as every street-busker's ideal working guitar. I certainly can see no connexion with Latin American cowboys. The catalogue refers to "exceptional resonance": if that means "more resonance than one would expect from an instrument of this type", then I disagree. It is mechanically very efficient, or if you would prefer it another way — loud.

It is however, quite efficient in the area of pitch where the ear is most sensitive, and this makes for the sort of tone which I find unpleasantly strident at close quarters. It might sound better in the middle of a large audience, but I don't think there is enough bass to travel that far, and the strident tone does not hold much hope for subtle "miking-up" to a P.A. system.

I have a strong suspicion that the soundboard is not Abete (Spruce) but Abete laminato, (plywood) which is a different matter altogether on a guitar with this particular internal construction, and may account for some aspects of the tone.

The large bridge is an unusual feature, normally found only on the more obscure Continental Jazz guitars and is not a gimmick, but is actually part of the strutting system of the soundboard. Some Classical Guitars have internal strutting under and along the bridge and instinct suggests it is a very good idea on several counts, but it does use a lot of Rosewood, and is difficult to fit properly. Considering the time and care which has gone into this guitar, and the excellent materials used, it is a pity that it should be so limited by the middling soundboard and the slightly grotesque decoration.

I am aware that it was once considered a luxury feature on a Jazz guitar to have Classical guitar machine heads with larger diameter rollers, but tuning would be made much easier if the machines had narrow brass rollers as (for instance) on some slotted-head Martins. The wider type of roller serves to reduce the apparent gear ratio of the machine heads and is really more appropriate to nylon strings.

While I am on the subject of machines, I believe the ones fitted are Japanese. If this is the case, full marks to EKO for getting machines out of Japan which are of conventional "Classical" construction, AND HAVE PROPER BEARINGS, not two bent-up hooks. I suspect that such machines have always been available, but at a higher price,

and that at least some importers have said they are "not available," when they mean that they are not in the catalogue. It is almost impossible at the moment to get reasonably priced replacement machine heads for the better Spanish-made guitars. Perhaps Messrs. Rose-Morris would like to import them (but with ovoid or rectangular "pearl" buttons, please).

I am really rather sorry about this guitar because it could do a lot to dispell the EKO "cheap guitar" image, but it is made to suit Italian taste, and it has too much in some places and not enough in others. At the moment it is no competition for another (Japanese-made) Maccaferri type guitar — but it could be, if its priorities were rearranged a little.



The measurements are as follows: scale length, 650mm; string spacing at bridge, 56mm; string spacing at nut, 37mm; width across nut, 43mm; action as supplied 2.0mm. treble/2.8mm. bass. (This was just too low at the treble side; a slight kink in the neck caused a buzz around fret 9).

Cleartone 6+12 Twin-neck

£148.29 Ex VAT

It is generally assumed that twin-necks (even Japanese ones), are expensive beasts. They may have real advantages for a very few versatile players, but are considered by many to be symbols of prestige and status. As beasts go, they are generally also heavy, unwieldy, and without any of the charm of Mr. White's "Questing Beast". (For further information on this subject,

see The Good Musician's Book of Bedtime Stories, available in paperback as The Once and Future King).

This twin-neck is rather less expensive than some of its apparent competitors and on first inspection, appears to very good value. However, I regret that a more detailed examination shows once again, that one very rarely receives more than one pays for — and sometimes less. It is not in any way my intention, in the following report, to imply a case of deception, but I would suggest that certain aspects of the instrument are not as they may appear, and this should be made clear to younger and less experienced musicians, who may assume more than they should.

I used to think that the serial number on a guitar was a form of manufacturer's identification, showing where, and when it was made. Guitars with bolt-on necks frequently carry serial numbers on the back plate and this twin neck, not unreasonably, has two back plates and two numbers. What is surprising is that there is a difference of 356 between the two serial numbers! I did not have time to check the machines on the 12-string head but two of the six-string set are very loose inside, and could soon cause trouble.

Both nuts are plastic but well made and fitted. The final adjustment on the six-string neck is very good, and on the 12-string, is adequate for most purposes.

Some of the frets are poorly fitted and most of them could be better finished at the ends. Sur-



prisingly, the 12-string neck was nearer to straight than the six-string. Both necks are loose on the body and make creaking noises from time to time. This is partly because the neck retaining screws have not been tightened properly. (The same complaint could be made of virtually every other screw on the guitar).

While the pick-ups are contained in the familiar rectangular metal cases with one row of screws off-centre, their internal construction bears little relationship to a humbucker, and both the subjective "sound" and their technical performance characteristics are quite different from what one would expect. These differences might not be noticeable if the instrument was tested at low volume, in a fairly noisy shop, but they do affect both



tone and string balance on both necks. Irrespective of design, the pick-ups are not particularly well made and some samples could be liable to feedback troubles.

It is not possible to obtain a signal from one of the 12-string pick-ups. I did not locate the fault, but while I was examining the nearby wiring, a bundle of cable screening braids fell off their common connecting point on the selector switch. The remains of the joint suggested that insufficient heat had been used, considering the large mass of the switch body. The same problem was about to occur on one of the six-string pick-ups, and in one place in the control section.

It is difficult to adjust the bridges vertically, because the adjustable bridge pillars become stiff when the bridge is placed on them, and almost seizes up when the string pressure is added to this. The octave adjustments on the six-string section are good, but as the same model of bridge is used for the 12-string half, and as it can only adjust adjacent string lengths in pairs and can not bring each bass string and its octave in tune with each other it is not particularly effective. This fault is common to almost every electric 12-string, but that is no reason to accept it without comment. Rickenbacker used to use "forked" saddles, which gave quite a reasonable compromise with the right strings. The conversion of the six-string bridge for 12-strings leaves a little to be desired.

Even twin-neck fanciers would admit that they can be a little accident-prone at times and I am pleased to see that both heels and heads are made strongly enough to survive minor accidents.

The body is made from a wood similar to mahogany, possibly iuan, and the necks from a pale hard wood which may be maple or sycamore, and which seems to have very suitable properties for a strong, stable neck. The instrument is finished to a good standard in cherry-red lacquer, which allows one to see the natural grain of the wood, and the fingerboard edges are bound carefully with white plastic. In fitting the fingerboard inlays, the maker seems to have copied not only the Gibson design and materials, but also their method of fixing this type of inlay. Some of the pieces are already coming loose.

The metal parts are finished fairly well but the plating has been polished through in places on the pick-up covers.

The truss-rod covers are poorly finished and some of their fixing screws refuse to be screwed in fully. It appears that someone has done their best to tighten them and then just left them.

There is no screening in the control cavity, but it is hardly necessary, as all signal wires are either very short, or well screened themselves. The electrical system is fairly simple: each set of strings has a conventional pick-up selector switch and one tone and one volume only. By the tone and volume controls is an additional selector switch for six, 12, or both.

Because the whole guitar shows signs of hasty and unchecked assembly, I feel that these instruments are likely to vary considerably from one sample to the next, and detailed action measurements would not be useful. Two years ago this instrument would have been considered perfectly acceptable for a Japanese copy, but standards of Japanese guitars are going up rapidly, and I am now less willing to accept certain details of its design and workmanship: It is not quite the bargain its price would suggest.

Kasuga IG 2000V £201.00 Ex VAT

As you will see, this is an ornate instrument, with fancy inlays in the fingerboard and a pattern of leaves and tendrils carved in the top. Almost everybody likes the fingerboard, but my friends are about equally divided over the vine leaves; half like the carved top and half think it is a bit much. I intend to sit on the fence over this one. The rest of the guitar is well made and the general standard of finish is good. It also costs a lot of money; there is probably a similar model without the carving at a lower price. However, at least you know that this top is not hollow and laminated: Most Japanese Les Paul copies have hollow tops and the sustain suffers as a result.

I think you may prefer to have all the detailed measurements in one lump now and my reactions to the guitar later. Scale length, 625mm; string spacing at bridge, 50mm; string spacing at nut, 35.5mm. (This could easily be 37mm, which would be more playable); width across nut, 42mm; action as supplied, 1.5 treble/2.3 bass; action possible after adjustment, 1.0 treble/1.9 bass; At 1.1 treble, the bridge adjustment hit its end stop, but this was about the limit on the frets anyway. If you are planning to have the frets stoned to allow a lower action, check that the bridge will go low enough). Apart from the decoration, and the certainty of a solid top, there is nothing particularly unusual about this guitar. The materials are a little better, the

fingerboard is pretty, the standard of fittings and workmanship rather better than average, the machine heads are excellent, and the guitar has the characteristic faults and omissions of its kind. I don't expect ivory for the nut, but I do expect the best substitute the plastics industry can provide. (Delrin might be a good starting point).

The glass-clear knobs are a delightful and delicate touch, particularly since their shape refracts light and prevents their becoming invisible on stage, but couldn't the switch surround be clear too and engraved underneath? As I have had to say before, on a better known guitar, hot printed gold is no substitute for machine engraving and this is not a cut-price guitar.

The tone and volume component values appear to be a faithful copy of those fitted to some Les Paul models and in both cases, replacing the pots with log law types would improve their operation considerably.

The standard of wiring and solder joints is very good and suggests considerable care in assembly, but after such trouble, the maker has perversely omitted to screen even the back access-panel. The point is — you shouldn't have to, when a £38 guitar from the same importer is supplied with at least one side of the cavity screened. (Do Yamaha have an exclusive on cheap conductive paint?)

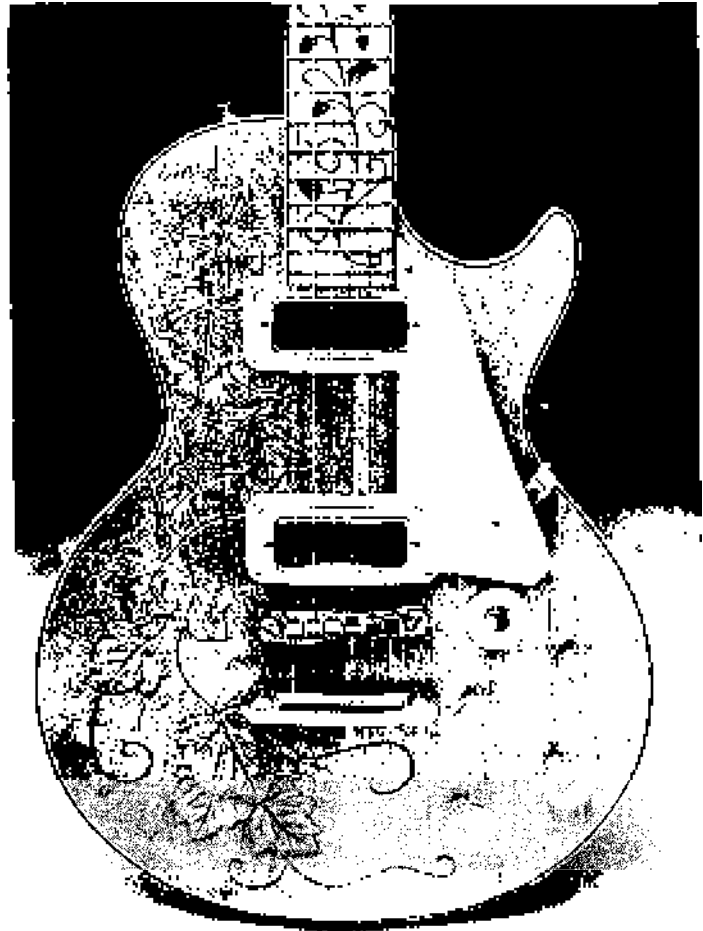
While I am on the subject of access panels, someone has cut the recess for the back panels too deep and packed it with loose pieces of scrap plastic.

The neck is bolted on, which seems a bit mean for over £250 including V.A.T., but it is fitted quite well and as both body and neck are hard maple, it can be screwed on very tightly. This sort of neck joint can reduce the guitar's sustain if not fitted perfectly, and while the review sample is acceptable, you should check very carefully for a close fitting and a rigid neck joint.

The fingerboard is lacquered with a slippery material and most of the frets have smooth polished tops. (A few have small file marks, beyond the cutaway). Unfortunately, the frets are carefully finished at the ends, but not in an appropriate way, and the beautifully polished bevels still have sharp corners. The bridge is a slight variation of the usual Gibson copy and seems to be well designed; the tailpiece is perfectly standard.

The pick-ups bear the name Maxon underneath, which is one of the most reputable Japanese brands. They look and sound remarkably like those fitted to some Les Paul De-luxes — and the similarity is obviously intentional. What is more interesting is that these copies are not merely similar, they are virtually identical, even as far as (invisible) assembly details. Make of that what you will.

To sum up, this is a cleanly made guitar, similar to several of the better copies, with the addition of carved and inlaid decoration. The body carving appears to be done by hand — I wish the maker had carved one or two leaves less, and spent the time gained, on fixing the frets.



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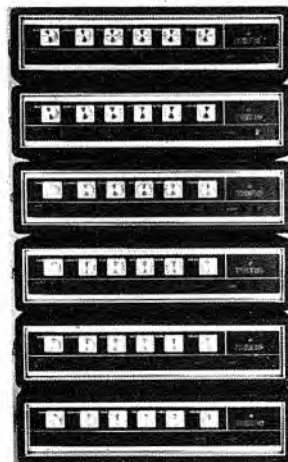
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IN BRIEF

FENDER Telecaster

£240.25 ex VAT

I think it's valid to look at some of the "old established" guitars like the Tele from time to time. There can't be many guitarists who haven't tried, played or seen a Fender Telecaster. It hasn't changed much in twenty-odd years. That's not through lack of progression — it's just that the original design was pretty damn good to start with. (Leo Fender invented it in 1948 and introduced it as the Broadcaster, but changed the name to the Telecaster soon after, as Gretsch had named one of their drum kits the Broadcaster. Apart from a few changes — notably, the pick-up selector system, the pot resistance and the bridge — the Tele has remained the same.)

Generally considered to be the workhorse of the Fender range, the Telecaster is still among the most popular of electric guitars. Its construction and layout is very simple but very effective. Like most of the Fender range, the machine heads are placed on one side, providing a straight "pull" on all six strings. Two string guides are provided for the 3rd and 4th strings and the 5th and 6th strings.

The bridge assembly also houses the rear or lead pick-up, and a snap-on bridge cover is provided to hide all those nasty screws and things. Most people, however, instantly dispense with this plate as it hampers accessibility to the rear pick-up, and you can't pick as close to the bridge as you might perhaps like.



The bridge section is actually three bridges, each of which has two height adjustable screws. Longitudinal adjustment of these bridge pieces is provided by three length adjustment screws. If a string is flat when played at the twelfth fret compared with the open string harmonic at the same fret, the corresponding screw should be turned counter-clockwise, shortening the string length. Naturally, a clockwise turn will lengthen string length if the string is sharp. With only one length adjustment screw for two strings, octave adjustment is not totally accurate, but you can cheat by "nudging" the string height adjustment screws.

After each string passes over its corresponding bridge piece, it "disappears" through a hole in the body and is locked in place at the back of the guitar by the ball-end. (N.B. This three-piece bridge system applies to the Telecaster Standard and Custom. The Telecaster Deluxe and Thinline models have the Strat-type bridge units.)

The lead pick-up is just in front of the bridge assembly at a slight angle, and is height-adjustable via three small rose-head screws — one at the front of the pick-up and two behind. This is the stronger of the two pick-ups. It has an extremely trebly, biting tone. So much so, in fact, that it very often causes problems with feedback at high volume. The rhythm pick-up is a much weaker unit, located about an inch from the neck. It has a reasonably smooth, mellow tone but, when switching from the lead pick-up to the rhythm, there is a noticeable drop in volume. Admittedly, there are two height adjustment screws for this pick-up, but raising it makes hardly any difference in volume. Not only that, but the scratchplate has to be removed to get at these screws anyway. Many people have been known to replace this pick-up with a Stratocaster or Gibson job — both of which seem a reasonable idea. (In 1954, Fender introduced the Esquire, which was identical to the standard Tele sans the rhythm pick-up. You may be lucky to spot a second-hand one in a shop, but they are few and far between, as they were sadly discontinued in 1969. Sadly, as Jeff Beck used one to great effect on early Yardbirds recordings.)

The controls are in the form of a pick-up selector switch, tone control and volume control. The forward position on the selector switch brings the rhythm pick-up into operation, the middle position gives you both pick-ups and the rear position gives the lead pick-up. On very early models, the selector switch gave a choice of the lead pick-up (rear position), rhythm pick-up (middle position) or the rhythm pick-up with a large capacitor (front position). The last setting provided a deep, boomy bass tone, and was used mainly for bass lines before the popularity of the electric bass. The volume control and tone control function in all

pick-up select switch positions.

As I said, it's a workhorse of a guitar. There's no "flash" extras on the standard Tele. It's simple to operate and versatile enough for many players, but there is room enough for "customising". (The model pictured here has the optional maple fingerboard, which is available at a higher price. The Standard Tele has a rosewood fingerboard.)

MIKES

MD 1750

£56.76 ex VAT

RCF MD 1720

£45.40 ex VAT

Perhaps these microphones are a little on the expensive side, but they compare pretty well with other, more popular makes of a similar price range. The MD 1720 is a low-impedance (200 ohms) mic with a three position tone control. A change in tone is facilitated by twisting a serrated plastic ring located around the

centre of the stem. It has a fairly good frequency response (30Hz to 15,000Hz) and performs well in studio use. It's also sturdily-built — even Daltrey would have a job damaging it.

The MD1750 is a dual impedance model. The cannon-type plug can be altered so that connections 1-2 will give low impedance, and 1-3 will give high impedance. The mesh on the head is protected by three metal strips which extend up from the stem, and there is also a detachable, oval antipop filter provided. This can be slipped over the head of the microphone and is held securely in place by a foam rubber ring around the inside of the filter. It has the same frequency response figures as the MD1720, and therefore performs well both in the studio and on live work. Both mikes are supplied in a fitted carrying case, padded with thick foam rubber.



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TEST ON: *Leeman Kit*

DATE: *March '76*

PRICE: *Approx £506 Ex VAT*

TEST BY: *Bob Henrit*



Anyone launching a new product today would have to be something of a gambler. Anyone launching an expensive product with a personally limited market would have to be something else – an inveterate gambler!

I took the train from St. Pancras to meet such a gambler and examine such a product. Leeman drums are built in Nottingham from stainless steel and were first shown in Frankfurt at the trade fair last year, although not on one of the expensive stands paid for jointly by the exhibitor and the Board of Trade, but in the middle of an icy car park. Interest from wholesalers was good but interest from rival drum companies who had paid for their stands was far from good and bordered on abject rage.

The drums survived and are now a year older and beginning to gain acceptance, although not yet in England. Their market at the moment is Belgium, France, Canada and Australia. These countries buy up all the drums that the company can produce. A new factory is under construction in Nottingham and as soon as it's finished, production will start for Britain.

The Leeman Company began exploratory development three years ago and since they were working with an unusual material, as far as anything other than snare drums is concerned, there had to be a lot of trial and error to find out which gauge of steel would be best for each drum size. Fortunately the company is run by enthusiasts and so time and energy were immaterial. The people behind the company have an interesting background. They're all musicians and besides making drums, have a drum shop in Leicester with a recording studio behind it, and they give specialist drum tuition and also do gigs when they can find the time. They

are definitely not out to "rip-off" anybody, which makes a refreshing change.

The problem with stainless steel drums has always been the expense of the raw material. Asba have been making metal drums for three years; Sonor brought out a set last year but had to discontinue it as far as England is concerned because it was too expensive once it was shipped here, and Ludwig have just entered the lists with their Chicago built sets. All of this should give Leeman a head start, since their drums originate in England and so won't, unlike their rivals, be subject to 15% or so import duty.

Up until now, the drums have only been available in silver, but the company have recently been experimenting with two sand-blasted finishes, Copper and Brass. These finishes look interesting enough but I suspect they might scratch badly.

The set has unique rectangular nut-boxes made of solid metal blocks which can be silver or abnormally anodised black. These blocks are purposely not attached to the drum correspondingly since Leeman's development showed that this stiffened the shell from top to bottom down its nut-boxes fixing points and stopped the shell from resonating properly. Instead, the lugs are staggered so that no two correspond from front to back and so the shell vibrates more naturally. These nut-boxes have springs inside at the moment but since the drum has a completely metal construction, it would be better to fit plastic tube instead and cut out the possibility of the metal springs "singing" in sympathy with any extraneous instruments.

Remo C.S. heads are fitted as standard on all the drums.

Bass Drum:

The test set had a 22" bass drum which was 15 inches deep. They also make 20, 24 and 26 inch drums, all of the same depth. They are made from 16 gauge stainless material and are unusual, in that they have solid anodised aluminium counter hoops made from 3/8" stock. They are slightly deeper than normal at 2" and since they are made from solid metal have their own inherent resonance which contributes to the overall sound. Funnily enough, the drum didn't sound

as I'd expected; I thought it would be somehow "clanky" but instead it had a warm sound reminiscent to me of an early Ludwig - Very curious. It uses a felt strip muffler acting only on its batter head so I tried damping the front head to see if the sound would change one way or another. It didn't. The drum sounded fine. The drum has 20 off-set nut-boxes with substantial Gretsch-type claws and tympani-type tuners.

Tom-Toms:

These didn't sound like I'd expected they would; they had a good, bright drum sound but weren't over "ringy". According to their size, they are made from 18 or 20 gauge stainless with triple flange hoops and 12 nut-boxes on the 13 x 9 and 16 on the 16 x 16. The set I was playing did not

have any dampers but they do make them and fit them to the bottom head of the tom-tom, since they feel this is the head that needs dampening on an all metal drum. All these drums are fitted with slot-type tension screws.

Snare Drum:

The snare drum supplied was a 14 x 5 but I did play a 6 1/2" shell and a 14 x 9 military type drum just to get an idea of the difference the shell size makes to the sound. The drum sounded good but for some reason wasn't fitted with a C.S. head; it would be improved by changing its heads. It too had triple-flange hoops and 7/32" tension screws with a British Standard "Fine" thread. Drum tensioners normally use a coarse thread but Leeman maintain that a fine thread allows more accurate tuning. I'm not convinced, since a fine thread with more turns per inch needs to be tuned more to achieve the same movement effect as a coarse thread.

The 22" gauge shell itself, like the bass and tom-toms, is bent into shape and joined after its edges have been turned over on themselves and spot welded to form a beaded edge. This is the old way of making metal drums, but manufacturers now use a reverse flange inside the shell set at about 45 degrees to it which gives a very small bearing edge and less

"touch-area" to the head. However, the Leeman drum seems to accomplish the same thing in a different way.

The drum had ten tension screws per head and ten double insert nut-boxes. They make a cast aluminium snare strainer which wasn't fitted to the test drum but I did see it and will comment. It's a cam-action mechanism which has its snare tension adjustment diametrically opposite its on/off lever. Personally, I'm not too enthusiastic about this since it makes either snare adjustment or quick snare-release difficult. Still, it's an extremely well-made fitting for all that. The drum has a very wide but slight snare rebate area. Their engineers discovered that 7 degrees was the greatest depth that their "bed" could be without clogging-up the sound. The drum like the others doesn't have any air holes and judging from the sound, doesn't appear to need them. There was an on/off adjustable locking damper too which I found quite useful.

Accessories:

Leeman do not make cymbal stands, hi-hat stands, snare drum stands, or bass drum pedals since they feel quite rightly the drummer is already over catered for in these areas. They also say they are in business to make good quality drums and not to be side tracked into making stands and pedals. However, they do make tom-tom holders, tom-tom legs, bass drum spurs, and lockable spring-steel dampers.

The double tom-tom holder is a hybrid and unashamedly borrows from all the other makers' designs. The stainless steel tom-tom legs have their own block which is anodised black to order and quadruples as a shell mount for the tom-tom holder or spur holder or cymbal arm holder. It has two

substantial drum key operated screws which maintain the required position once set.

I'm normally dubious about threads tapped directly into solid blocks, since they do have an annoying tendency to strip. However, with these blocks you at least have two chances.

The tom-tom legs are made from stainless steel with Gretsch-like 15 degree bends at the bottom and no rubber feet. The spurs have a triple bend like most non-disappearing versions but their angles have been adjusted to enable them to fit the shape of the drum better so they don't have to be removed for packing away.

Conclusion:

The set has an unusual look because of its nut-boxes, especially the black anodised ones which I would fit as standard to all drums and not offer any alternatives. These nut-boxes are of course something of a trade mark and because they are so distinctive Leeman feel it unnecessary to fit badges. I pointed out that there really ought to be some identification for every drum, e.g. a number stamped inside just in case the drums ever get stolen.

The finish of the drums is generally good inside and out although I don't know what they would be like after heavy touring wear and tear since stainless steel does have a tendency to scratch. Mind you, the test set had evidently been around for some time and without looking at it too

closely it didn't seem to be badly marked. They certainly do look unusual. It's obviously too soon to know whether the joins on the shells will prove to stand up to punishment but we shall see what we shall see. I rather think they will.

I was provided with a retail price list so was able to work out very roughly how much a large size rock'n'roll set would be. Here goes: 13 x 9, 14 x 9, 18 x 18, 24 x 15 and snare drum 14 x 5. Total close to £550 including V.A.T. This is definitely not cheap, but anyone who wants an original-looking, good sounding stainless steel drum set and wants to help the country out by investing in a British outfit should watch out for Leeman drums!

SOLID GUITARS SURVEY



Burns

Burns guitars recently reappeared on the scene with a new design by James O. Burns. The Burns Flyte is made of carefully selected hardwoods, fully seasoned to the highest standard. Its unique *delta* design is just the beginning: other noteworthy features include the Canadian rock maple neck with ebony finish, 21 nickel silver "speed flow" frets, adjustable silver truss rod, two "Mach-One Humbuster" pick-ups which allow for string variation from fret to bridge, and a "Dynamic Tension" bridge design, which allows for control of each individual strings height.

Baldwin

Baldwin are the U.K. distributors for Gretsch guitars. Manufactured in Cincinnati, Ohio, the Gretsch range includes the Broadcaster, which boasts a laminated rock maple neck, a hard maple fingerboard, truss rod adjustment, nickel silver jumbo frets, a solid rock maple body, contour taper sides, dual cutaway design, dual pick-ups, selector switch, tone selector switch, individual volume controls, chrome hardware, enclosed gear machines, coverall guard plate and a terminator tail-piece.

The Roc Jet 7610 has a laminated mahogany neck, an ebony fingerboard, adjustable truss rod with gear box, nickel silver frets, solid mahogany body, single cutaway shape, Super-tron dual pick-ups, a pick-up selector switch, tone controls for each pick-up, a master volume control, chrome plated hardware, enclosed gear machines, an adjustable bridge with individual saddle string adjustments, and a Gretsch G tail-piece.

The Roc Jet 7612 has a laminated rock maple neck, an ebony fingerboard with neo-classical inlays, an adjustable truss rod with gear box, an inlaid headpiece, nickel silver frets, solid mahogany body, red satin top, single cutaway body, Super-tron dual pick-ups with selector switch, individual tone and volume controls, master volume control, chrome plated hardware, enclosed gear machines, Gretsch "G" tail-

piece and an adjustable bridge with individual string saddle adjustments.

The Roc Jet 7613 has a laminated rock maple neck, ebony fingerboard, adjustable truss rod, inlaid headpiece, nickel silver frets, solid mahogany body, single cutaway, Super-tron pick-ups, selector switch, individual tone and volume controls, master volume, chrome plated hardware, enclosed machines and an adjustable bridge with individual string saddle adjustments.

J.T. Coppock

The Antoria range of solid electrics are marketed in the U.K. by J.T. Coppock of Leeds. The Antoria 2350 has a contoured top, detachable neck with adjustable truss rod, rosewood fingerboard, goldplated machine heads, two pickups, two volume and tone controls with a pick-up selector switch, and a mirror polished finish.

The 2354 also has a detachable neck and rosewood fingerboard, but the machine heads are chrome plated, it boasts a vibrato tailpiece, and is not unlike an SG in shape, while the aforementioned guitar resembles a Les Paul.

The 2352 is rather like a Telecaster in shape; finished in ivory, it has a detachable neck with adjustable truss rod, rosewood fingerboard, chrome plated machine heads, and a mirror finish. The 2355 has a fully arched top, finished in sunburst with white purfling edges. The slim fast low action neck joins the body at the 14th fret, the fingerboard is rosewood, the machine heads are chrome plated, and it boasts two pick-ups.

The 2356 has a fully arched top, a slim fast action neck, rosewood fingerboard, gold plated machine heads, two pick-ups, a toggle switch and a mirror cherry sunburst finish.

The 2358 is available in two versions, maple and rosewood, and has a detachable neck, rosewood fingerboard (in both instances) gold plated machine heads, two pick-ups, gold plated adjustable bridge, and a mirror finish.

John Birch

One of Britain's largest and most successful custom guitar makers, John Birch do scores of shapes and sizes of guitars, all sharing certain basic principles. These are: a one piece maple neck and body-centre construction, which allows for an obstruction free playing length from the nut to the 19th fret; a choice of maple, rosewood or ebony fingerboards; a choice of stainless steel or chromed metal parts; and Hyperflux "G" pick-ups with their "Forever" guarantee.

Typical of the selection of John Birch guitars available is the SCD 'JD', which has an optional stainless steel pick-guard, 22 or 24 frets, and vibrato. The SCDL also is available in either 22 or 24 frets, and has block inlays, a choice of colours, and a pick-guard.

John Birch guitars are each singular, and are available with a tremendous number of optional shapes, sizes and components. They really require personal examination, or at least reference to a John Birch catalogue, which is available for 8½p from John Birch Guitars, 106 New Road, Rubery, Birmingham 45.



Davoli

Davoli are responsible for the fine range of Gherson guitars in the U.K. The G2 has a solid body with adjustable bridge, neck and pick-ups with separate tone controls allowing a degree of tonal variety. The fingerboard is rosewood with pearlised inlays, and comes in natural, walnut and cherry.

The L2FR has a solid mahogany body with inlaid copper edging, rosewood neck and gilt fittings supplied with a fully fitted shaped case, and comes with either a mahogany or walnut finish.

CBS/Arbiter

Perhaps the most famous guitar manufacturers in the world, Fender, are represented in this country by CBS/Arbiter. The Stratocaster boasts three Fender pick-ups, six independent bridge

sections, tilt neck "micro" adjustments, and is available with or without a tremelo arm.

The Telecaster, claim Fender, is their most brilliant sounding guitar, and has two wide-range high-fidelity pick-ups and three individually adjustable bridge sections. It comes in a variety of finishes and boasts an optional one piece maple neck. Variations of this favourite include the Telecaster Custom, which boasts a single Tele pick-up and the relatively new humbucking rhythm pick-up; and the Telecaster Deluxe, which includes two humbucking pick-ups, a single piece hard maple neck, deluxe precision machine heads and individual controls for each pick-up.

Fender's other models include the Jaguar, with Fender's floating bridge, a floating tremelo, a lead rhythm selector switch and a bridge-mounted string mute; the Jazzmaster, which has a floating bridge, floating tremelo, two wide range high fidelity pick-ups and a contoured waist; The Mustang, with two pick-ups, two three position pick-up and tone switches and a built in patented dynamic tremelo.

The Arbiter range of copy guitars are intended to mate design and quality with economy. They include a wide range of guitars to suit "every need, from the student to the fully professional artist".

CMI

Clearstone Musical Instruments of Birmingham market three principal ranges of solid guitars: Miami, CMI and Klira. Miami FT 1 and FT 2 are vaguely similar in appearance to the Telecaster, and are constructed of luan. In addition, they boast adjustable steel truss rods, rosewood fingerboards, and separate tone and volume controls. The differences are that the FT 1 has one pick-up, while the FT 2 is fitted with double pick-ups and a separate on/off switch, and a tremelo arm.

Nearly all the CMI range of guitar's necks are made of Hondouras mahogany with adjustable truss rods and rosewood fingerboards. The Custom VI is fitted with two single high power pick-ups with selectable switching and individual tone and volume controls. The Salisbury, similar in form to the Ned Cailan, has similar advantages.

The CMI ST 300 is an "absolutely authentic copy" of a Strat, with three pick-ups, a three position selector switch and tremelo arm. With a maple neck and fingerboard, it is an exception to the aforementioned generalisation about CMI's woods.

The SG2S resembles, as the name implies, an SG, and has two humbuckers, selector switch and individual tone and volume controls, and a micromatic type bridge. The TF266 is described as "a high quality, economy priced guitar", and includes two pick-ups, two volume controls and a three position toggle switch.

Fletcher, Coppock & Newman

The Columbus range of guitars are the FC & N staple, and chief among them is the N 85, with its domed, single cutaway body, rosewood fingerboard, twin pick-ups and separate tone and volume controls, master switch, microset bridge and chromium plated parts. Ebony in finish, it is identical to the N 85/S, save for the latter's rich yellow to brown sunburst finish, which is complemented by a white pick-guard and pick-up surrounds.

The N 54 is a double cutaway model finished in either mahogany or cherry red polyester. The N 82 has a large double cutaway body with a shaded golden sunburst finish, three high response wide range pick-ups, two tone controls and a three position switch, as well as a built-in tremelo arm.

The N 113 is a double cutaway solid body finished in red or blue high gloss with white stripes, twin high response pick-ups, individual selector switches, tone and volume controls, tremelo arm and rosewood fingerboard.

Hohner

Hohner do a broad range of electric solids most of them copies. Their SG series includes: the SG2S, with two pick-ups, master tone and volume controls and toggle switch, an adjustable neck and bridge and a wine red finish; the SG2000, with two pick-ups, individual volume and two tone controls and a toggle switch, adjustable neck and bridge and a choice of finishes; and the SG220V, with two pick-ups, two volume and tone controls, a tremelo arm, adjustable neck and bridge, and a red finish.

The Hohner Les Paul effort, the LP2000G, has two adjustable pick-ups, two volume and two tone controls, a toggle switch, adjustable neck and bridge and either a gold or jet black finish.

The TF200N has two pick-ups, separate volume and tone controls, a three way switch, adjustable neck, a single cutaway shape and comes with a blonde finish.

The SP1 has a single adjustable pick-up, volume and tone controls, adjustable neck and bridge, a double cutaway body and also comes in a sunburst finish.

The FT2T has two pick-ups, volume and tone controls, a tremelo arm, adjustable neck and bridge, a single cutaway design and is available in either blonde or sunburst.

The ME20TS has two pick-ups, individual switches, volume and tone controls and a tremelo arm. The ST300 has three pick-ups a three position toggle switch, separate volume and tone controls, a tremelo unit, individual adjustable bridge saddles, a truss rod, and is available in either sunburst or blonde.

The AT2T has two pick-ups, volume and tone controls, a super thin adjustable neck, and a rosewood fingerboard.

Hornby Skewes

The principal names emanating from the Hornby Skewes stable are Kasuga and Zenta. The Kasuga range includes the LG-770V and LG-2000V, both of which are Les Paul copies. Both boast twin high fidelity humbucking pick-ups, two volume and tone controls, and a three-way tone selector switch. The LG-770V has a curly jacaranda top and a rosewood fingerboard, while the LG-2000V has a natural colour maple finish with hand carved decoration on the face and a mother-of-pearl vine design on the maple fingerboard.

The SG-360 and the SG-1880V are, as the letters implies, SG copies, and both boast twin pick-ups, two volume and tone controls, three-way tone selector switches, adjustable necks, rosewood fingerboards, and come with carrying cases. The SG-360's fingerboard is of rosewood and all the parts are chrome plated. The SG-1880V is walnut coloured luan, and boasts hand carved decoration, a rosewood fingerboard a mother-of-pearl vine design.

The SE-480S is a Strat copy with three pick-ups, a tremelo arm tailpiece, chrome fittings and a maple fingerboard with a polyester finish. Its finish is yellow sunburst.

Hornby Skewes' Zenta range are designed for players whose principal concern is economy. The EG 501 has a single pick-up, a single tone and volume control, a chrome plated bridge, and nickel/silver frets. The EG 502 is basically the same design, but offers two pick-ups, two selector switches and a chrome-plated tremelo arm tailpiece unit.

The HET 5001 has twin pick-ups, one tone, volume and selector switch, an adjustable chrome-plated bridge cover, and a maple fingerboard. The HES 5000 has triple pick-ups, two tone, one volume and three selector switches, a bridge/tailpiece adjustment and a rosewood fingerboard.

Rosetti

Designed and approved by Gibson, Epiphone guitars constitute the bulk of the Rosetti repertoire. At the bottom end of the range is the ET 270, an admirable guitar with a cutaway design, a glossy cherry-red finish, a three piece low action adjustable neck, rosewood fingerboard, pearl dot inlays, two pick-ups, with a single selector switch, a tone switch, a tone control, and a volume control.

Epiphone's ET 275 and the ET 278 are not dissimilar either in design or technical aspects. Dual-cutaway, two pick-up models with rosewood fingerboards, adjustable precision bridges, vibrola tailpieces and chrome plated parts, the principal difference between them is found in the finish — the ET 275 is a sunburst, while its fraternal twin is lustrous black in hue.

The Eros Solid Mark II guitars are marked by Rosetti. The 9711,

a less Paul copy, has two pick-ups, tone and volume controls, an adjustable neck with block inlays, an adjustable bridge, and a sunburst finish. The 9712 is an SG copy has double powerful pick-ups, volume and tone controls switches, pick-up selector switch, tunomatic bridge, adjustable neck with dot inlays, and is finished in black.



Rose-Morris

Shaftesbury, Avon and Ovation are the guitars which Rose-Morris market in the U.K. The Shaftesbury range kicks off with the 3413, which offers two pick-ups, natural wood polyester finish, p-u selector switch, separate volume and tone controls, Pearlex position markers, black scratch plate and a crafted double cutaway profile.

The Ned Callan Hombre has a golden brown sunburst body and a dark brown neck and head, two Ned Callan pick-ups, a tone and volume control, three way selector switch, detachable neck and fully adjustable truss rod, hardwood fingerboard with annealed nickel frets, a fully adjustable bridge and tailpiece assembly with a chromed cover and covered machine heads.

The Avon range begins with the 3403 which is said by Rose-Morris to be a "Professional-style guitar". Its attributes include a cambered rosewood fingerboard with large pearlex position markers, detachable neck with adjustable truss rod, two pick-up selector switch, chromed machine heads, tailpiece and bridge, and a black polyester finish.

The 3404 has a cherry red polyester finish, adjustable truss rod, six individual chrome machine heads, slightly cambered rosewood fingerboard, inlaid pearlex position markers, a large shaped black scratch plate, two chromed pick-ups with a selector switch with separate tone and volume controls.

Last but not least, the Ovation range of solid electric guitars leads off with the 3409, the Ovation Breadwinner. This boasts F.E.T.

pre-amplification linked to two low impedance Toroidal pick-ups, a Tri-point mounted bridge, a two octave detachable neck with adjustable tension rod and ebony fingerboard, six Schaller machine heads and a carrying bag.

The Ovation Deacon comes in a sunburst wood-grain finish, bolt-on detachable neck, cambered two octave ebony fingerboard, mother-of-pearl inlays, two Toroidal pick-ups, fully adjustable bridge, F.E.T. pre-amplification, one volume and one tone control, a selector switch, chrome plated Schallers, and also comes with a carrying case.

Selmer

The hallowed name of Gibson are marketed in the U.K. by Henri Selmer & Co. The Gibsons available in this country are many and various and not least among them are the SG range, which has begat a myriad of copies. The SG Standard needs no introduction, with its super Humbucking pick-ups, separate volume and tone controls, three position toggle switch, Tune-O-Matic bridge, and adjustable truss rod. The fingerboard is of rosewood and it boasts pearl inlays.

The SG Custom has three "extra hot super Humbucking pick-ups", highly sensitive tone controls, a mahogany body, a Tune-O-Matic bridge, a Gibson truss rod and gold plated parts.

The SG Special, claim Gibson, "is even more special". It has two new design Gibson Humbucking pick-ups. Each of these has separate volume and tone controls, and both are governed by a three-position toggle switch. The laminated neck has a new heel design for easy access to the upper register, and the rosewood fingerboard has dot inlays. This model is available with stop tailpiece or optional Bigsby vibrato.

The legendary Les Paul Signature has two low impedance pick-ups, with three point adjustable mounting rings, a three position tone switch, a maple thin-line body construction, laminated mahogany neck and a Tune-O-Matic bridge. The L5-S has gold plated pick-ups and bridge, a carved maple body with multiple binding, abalone head stock and fingerboard inlays, an ebony fingerboard, low impedance pu's with transformer and the traditional L5-CES tailpiece scaled down.

The L6-S is a relatively new model from Gibson, and has a six position pick-up selector switch and mid-range control.

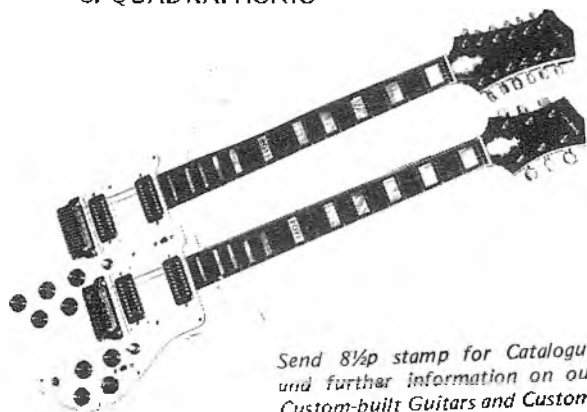
Selmer also market the Saxon range, and the 830 and 831 solid outfits resemble the Les Paul and SG respectively. The former has a rosewood fingerboard, mother of pearl inlaid position markers, gold finished pick-ups and bridge. The 831 has a low action neck and adjustable truss rod, a rosewood fingerboard, nickel plated machine heads, two pu's with separate tone and volume controls and a vibrato unit and nickel bridge.

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If you want a REAL guitar first name you should think of is **JOHN BIRCH**

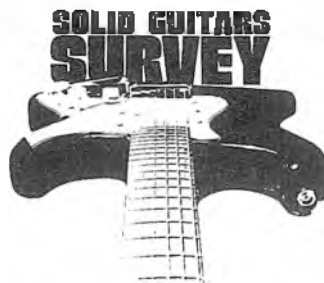
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from page 37

Summerfield

Ibanez, CSL and Sumbro are the guitars imported by the Gates-head firm Summerfield. All of these ranges are popular with guitarists who wish to combine quality with an economic price. The Ibanez range begins with the 2350. This guitar is finished in black and has white purfling edges. It has a detachable neck which incorporates an adjustable truss rod. The fingerboard is rosewood, and it has pearloid position markers and white bound edges. There are individual gold-plated machine heads with fancy pearloid buttons, and two pick-ups with separate pole pieces.

The FG360S is similar, but it has a sunburst top and two chrome plated pick-up units with separate pole pieces.

Ibanez make three standard twin-neck guitars, the 2402, 2402DX, and 2406 models. These vary in length and have either humbucking or humbucking and Bass-Master pick-ups, and a choice of finishes. The 234B and 2364 have transparent plastic bodies with rosewood grain pickguards, and detachable necks with adjustable truss rods. The metal parts on the latter model are heavily chromed.

The 2372 and 2372DX are Les Paul Recording copies. The first two are identical, except that the DX model comes with gold-plated parts. Both have mahogany finishes, detachable necks with truss rods, rosewood fingerboards with pearloid position markers, and low impedance pick-ups with built in transformers giving high impedance output.

The 2380 has a bright mahogany finish and incorporates King's Tone pick-ups with high and low impedance switches. The top model in the Ibanez range is the 2399DX. It has gold plated fittings, a rosewood fingerboard with inlaid mother-of-pearl and is finished in a cherry red sunburst.

Ibanez also do a Super V guitar, the 2387. The 2388 is designed to complement the R.B. bass, and has a fitted neck and slim line fingerboard. The 2613 has a contoured maple top; the back and sides are finished in dark mahogany. The fingerboard is maple and has pearl position markers and black bound edges. The 2616 has a curly maple top, back and sides with pearloid bindings, a rosewood fingerboard and super power humbucking pick-ups. Ibanez guitars also do a range of left-handed models.

The CSL range begins with the 2351 DX, which has deluxe

machine heads, a low action fingerboard, powerful pick-ups and a well finished top. The CSL range also includes the 2341, black with white purfling edges, rosewood fingerboard and three pick-ups and gold plated machine heads, and like the 2350W, which has two pick-ups, comes with a lead and a plush lined carrying case.

The "Swinger" is CSL's latest electric and offers powerful pick-ups with wide tone variation. The CSL "Oldies" series includes the Black Beauty and Melody Maker Deluxe models.

The CSL F range are Telecaster Deluxe copies, and include the 2352-C and L Luxe models. They have low action necks and high power pick-ups.

The CSL Flying Bird, no. 2348 is a copy of a Gibson Firebird and has twin pick-ups, a rosewood fingerboard and deluxe machine heads.



Stentor Music

Maya electric guitars are imported by Stentor Music of Reigate, Surrey. Their 3141 is a double cutaway model with a mahogany neck, cherry finish, rosewood fingerboard, one pick-up and volume and tone controls. The 3152 is a single cutaway model with a jet black finish, micro-adjustable bridge, two pick-ups with adjustable dual opposing poles, individual volume and tone controls and a three way switch. The 3243 is a custom version of this, with a red sunburst finish, gold and black appointments and highest quality fittings and electronics throughout.

A twin cutaway model, the 3171 has a mahogany neck, rosewood fingerboard, two pick-ups with adjustable poles, two volume and tone controls, a pick-up toggle selector switch, and a chrome adjustable bridge.

Modelled on famous American instruments, the Telecaster-like 3196 has a cream-coloured body, two pick-ups with tone and volume controls, and a three way toggle switch. Similar to a Stratocaster, the 3197 has a sunburst finish, three pick-ups, one volume and two tone control, and a sliding pick-up switch.

continued on page 41

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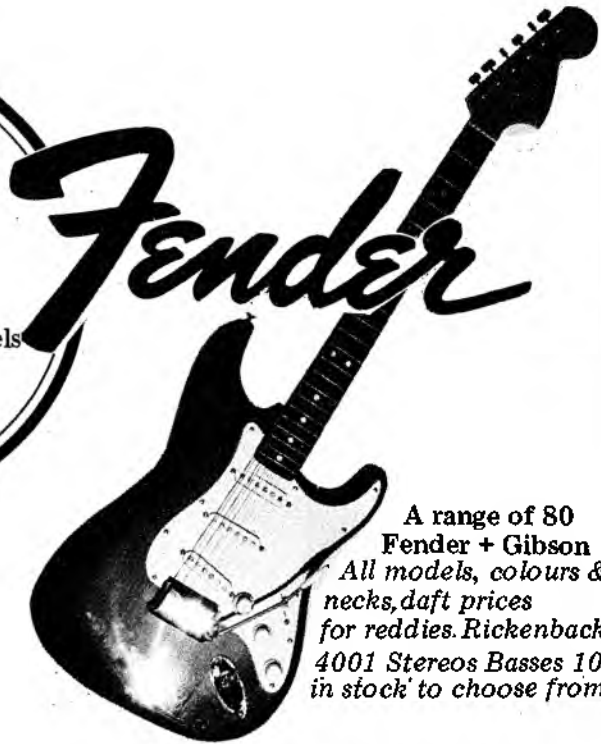
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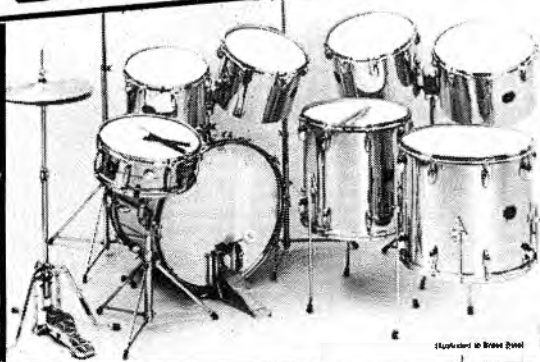
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SOLID GUITARS SURVEY



from page 38

Top Gear

Based in Brighton, Top Gear's guitar stable includes Guild and Rickenbacker. Guild's offering leads off with the S-100, which has a contoured mahogany body, a mahogany neck with adjustable truss rod, rosewood fingerboard with pearloid position blocks, chrome plated Grover Rotomatic machine heads, Guild Adjusto-matic six-way bridge, a Bigsby type vibrato tailpiece, two chrome plated Guild Humbucking pick-ups, each with adjustable pole pieces, a three way tilt adjustment and separate tone and volume controls.

The S-100 is much the same, although it is available in standard black and optional natural carved top models, and lacks the vibrato tailpiece of the Deluxe model. The S-90 has a mahogany contoured body, rosewood fingerboard, natural headplate, chrome plated hardware, Guild machines, Adjusto-matic bridge, solid brass tailpiece, two Guild Humbucking p-u's, three position pick-up selector and individual tone and volume controls.

The S-50 is ideal for the player who can make do with a single pick-up; apart from the absence of a pick-up, it is essentially the same as the S-90.

The M-75CS has a single cut-away mahogany body, a three piece neck with adjustable truss rod, a bound ebony fingerboard, and chrome plated hardware. Schaller machines, Adjusto-matic bridge, two chrome plated Guild Humbuckers, a three position pick-up selector, a phase switch for reversing polarity, and individual volume and tone controls. The M-75GS is identical, but boasts gold plated hardware. Identical, except for its double cutaway body, is the M-80CS, which also boasts a master volume control.

Top Gear's Rickenbackers begin with the 950, a solid maple bodied model with nickel plated hardware, rosewood fingerboard, bar type bridge, two pick-ups and two bass and two tone controls and a three way toggle selector switches.

The 420-450/12 has a solid maple body, nickel plated fittings, choice maple neck, rosewood fingerboard, two adjustment rods, adjustable bar-type bridge, separate tone and volume controls for each of the two pick-ups, and a three way selector.

The 620 is essentially the same distinctive shape and construction as the previous model, but boasts a deluxe "R" tailpiece, buffed nickel plated hardware, six way

adjustable bridge with individual string saddles, hi-gain Rickenbacker pick-ups (two), and a Rick-Sound output with fifth control knob.

Incorporating the body design of the Rickenbacker bass, the 480 incorporates most of the features synonymous with the name, and also boasts a removable laminated maple neck, six-way adjustable bridge with individual string saddles, super gain Rickenbacker pick-ups, and a deluxe "R" tailpiece. The 481 is distinguished chiefly by its 24 slanted frets and phase reversal switch. Its bridge is adjustable to six positions.



Yamaha

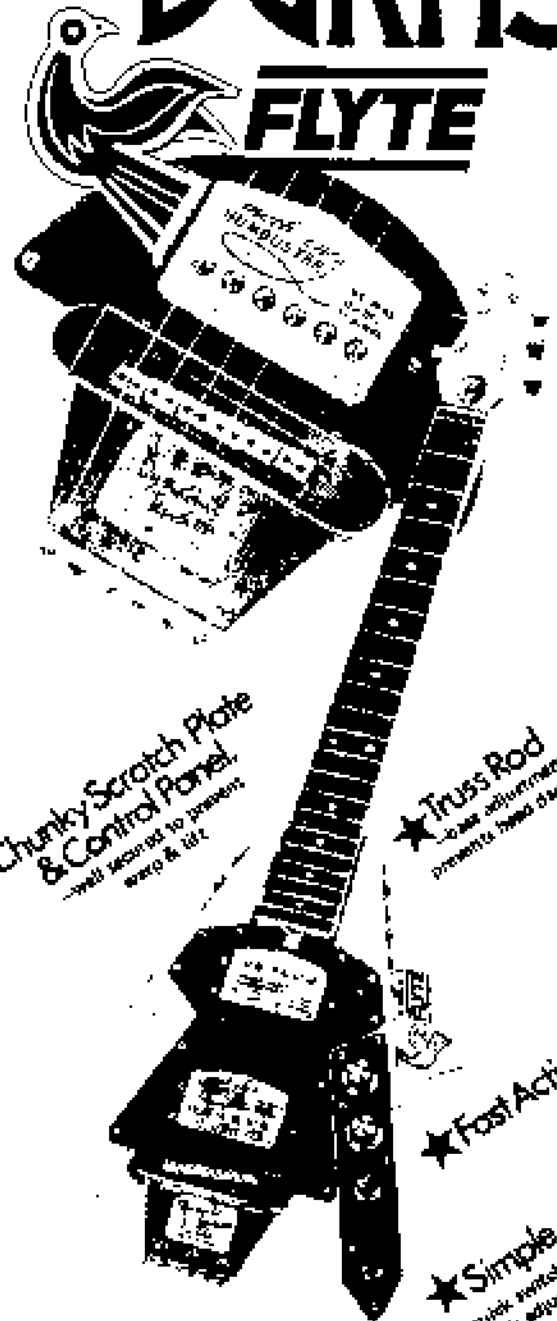
The Yamaha range of solid guitars begins with SG-20, available in red or black, it has one pick-up, tone and volume controls. The SG-40 has two pick-ups, three-way selector switch, dual tone and volume controls and is available in sunburst, red and black finishes. The SG-40S has dual pick-ups, three-way selection switch, dual tone and volume controls and is available in either red or black. The SG-80T has dual pick-ups, triple preset tone stages, three way selector switch, volume control, dual tone controls, a tremolo arm, and comes in either sunburst or red.

The SG-45 has dual double bobbin pick-ups, three-way selector switch, dual tone and volume controls, and is available in either natural or mahogany finishes.

The SG-80T has three pick-ups, five preset tone stages, a three-way selector switch, volume and dual tone controls, tremolo arm, tone boost and is available in natural and mahogany.

Last but not least, the SG-85 has dual double bobbin pick-ups, three-way selector switch, dual tone and volume controls, and is available in natural or mahogany finishes.

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Home recordings betray their domestic origins when they're played back on professional equipment. That's a truth that depresses most musicians recording at home and often inhibits a songwriter from submitting material to record companies and publishing houses for consideration. Making home recordings sound professional without professional-type cash investment is the point of this series of articles and in discussing monitoring this month we're looking at a neglected area in home recording.

Monitoring is universally ignored in home studio setups. Some musicians gather

Home Recording: Monitoring



a lot of sophisticated sound shaping gear in an attempt to control the signal but don't consider it's worth getting a decent monitor set-up to hear the final result of their efforts. The truth is that it's impossible to judge sounds in indifferent speakers and untruthful amps.

The first requirement for successful monitoring is a decent amplifier. Assuming a stereo set up, either two independent, (but matched), units will be required, or a twin channel amp that uses a common mains supply stage will be necessary. For most home applications, 100 watts will be the maximum power levels required per channel and typical amps for this kind of application are the HH TPA power amp or the Quad 303 amp. Ensure that the amp you choose has a really flat response and output; otherwise, it will colour the material you've got on tape.

It's far harder choosing speakers than the amps. Even response is the aiming point and for this reason it's more difficult to build good speaker cabs for recording applications than it is for stage work. If you need to amplify electric instruments or microphones on stage, the only requirement is that the enclosure should be rattle and

buzz proof and that it should not introduce too much colouration into the sound. In the small home studio set-up, the monitor speakers have to be as truthful as possible to get more than one position in a room that provides an accurate picture of the sound. Only recently have professional studios realised that for years the engineer and producer (sitting just a couple of feet away) hear different sounds, and point-less hours have been wasted in the studio with a producer trying to get a particular sound that the engineer had been able to hear for hours.

At home, with the alternate reflective and absorbent surfaces that abound in all living and bedrooms, you'll have to set your monitor speakers up in such a way that a particular position gives the best overall picture.

It's likely that your monitor speaker systems will be doubling as a music replay system connected to a record or cassette deck and to some extent this dual role will be a matter of compromise.

There's a large number of good loudspeaker enclosures on the market. At the most expensive end there's Lockwood cabinets which invariably employ drivers like

Tannoy Golds; in the medium price range there's the excellent range of AR speakers, the better Goodman models, and in the cheap price range endless "up market" hi-fi units that can double. Most of these units are infinite baffle in design and use the air-sealed acoustic suspension system that was invented by AR (Acoustic Research) in America in the 'fifties.

This innovation is today the basis of all "bookshelf" hi-fi speakers and relies on the principal of an air-tight box trapping a volume of air to return a slack speaker cone to its starting position after heavy driving. For this reason, speaker cone surrounds can be made lighter and more supple and thus better low-end frequency response results.

Choosing a speaker system for home recording is no easy matter. The main guidelines are the power required, space restrictions and price, and the latter is nearly always the most dominant factor.

Small hi-fi speakers do not give a true picture of the audio spectrum. No matter how good your recording techniques, you will be disappointed if you listen to your efforts on poor speakers



MACHINE

Akai 4000DS Mk II
£138 ex VAT

The Akai 4000DS Mk II is a relatively inexpensive stereo machine, and, as such, is pretty good value for money. Apart from the usual features like two VU meters, mic/line mixing, pause lever, and index counter, there are extras like the Automatic Shut-Off facility.

When the deck is set for automatic shut-off, the power of the entire unit is turned off at the end of the tape — very convenient if you fall asleep during a session. There is a Sound-On-Sound switch provided, eliminating the

need to swap line in/line out connecting leads around. The Play, Record, Fast Forward and Rewind modes are activated by two levers — Forward and Record on the left lever and Fast Forward and Rewind on the right.

The line in and line out (phono) sockets are situated on the rear of the deck, along with a DIN socket for direct record/playback connexion. The deck itself can be operated in an upright or horizontal position, as rubber feet are provided both on the bottom and back. It's worth mentioning the pause facility — by lifting the Pause lever up, the tape transport is halted. This lever is released by simply pressing the small Start button located directly underneath the Pause lever. The 4000DS Mk II will take up to a 7" reel, and there are two speeds — 3% i.p.s. and 7% i.p.s. A small criticism — to obtain a speed of 7% i.p.s., an outer capstan has to be fitted. This is supplied with the machine, but comes in two parts — a collar and a small knurled locking nut. A storage post is provided for the outer capstan when not in use, but small items like these are so easy to mislay or lose, and can be difficult to replace. A small point, but one worth mentioning.

The track selector switch is located on the front of the head cover and has three positions: 3-2, Stereo and 1-4. Technical specifications are pretty good: the Frequency response covers from 30Hz to 23,000Hz, while Signal to Noise is better than 56dB. A good machine for a very reasonable price.



MACHINE

Sony TC 377
£143.96 ex VAT

I am constantly amazed at how Sony are able to keep the price of this excellent machine down to a reasonable level. It is basically a straightforward two-channel, stereo deck, but with a number of interesting features, one of which is the fact that the 377 can be used either horizontally or vertically. Most people agree these machines look more attractive in a vertical position, but this can make editing a bit tricky, hence this facility. Like a Dokorder, it can only accommodate up to 7" reels at a top speed of 7 1/2 inches per second but the frequency response and signal to noise figures (see last month's feature on Home Recording) are quite good. There are mic and line level controls for each channel situated on either side of two large, illuminated VU meters.

Source/Tape monitoring is facilitated by the provision of two switches on the right-hand side of the deck. Standard features like a pause/lock switch, mic attenuator switch, and tape select switch are also provided along with a three-speed (1%, 3%, 7 1/2 i.p.s.) selector switch.

The detachable mains cable is connected via a socket housed in a recess on the right-hand side of the cabinet. There is another recess on the left side housing a DIN record/playback socket, a level adjust control and Line In and Line Out phono sockets. These recesses also act as carrying handles.

One thing I cannot understand is why there is no Sound-On-Sound switch provided on the TC 377. Sound-on-Sound can be obtained however, by recording on the Left channel and connecting Left Line Out to the Right Line In. Record your second part on the Right channel, while monitoring the first part (which is being transferred to the Right channel along with the new "programme") via the Right Line level control. Both parts are now on the Right channel.

If another part is to be added, repeat the procedure, this time connecting Right Line Out to the Left Line In, and recording on the Left channel. All three parts will be transferred to the Left channel. Obviously, by repeating this, a certain amount of noise or "tape hiss" will be added each time, but it is possible to get at least four different parts down without too much noise evolving. Swapping these connections around, however, can become a little tedious. The easy way round this is to break the leads in the middle and intercept them with a couple of toggle switches. This will then give you Right-to-Left and Left-to-Right switching, eliminating time-wasting "patching". That's it, then: a fairly inexpensive but very versatile machine.

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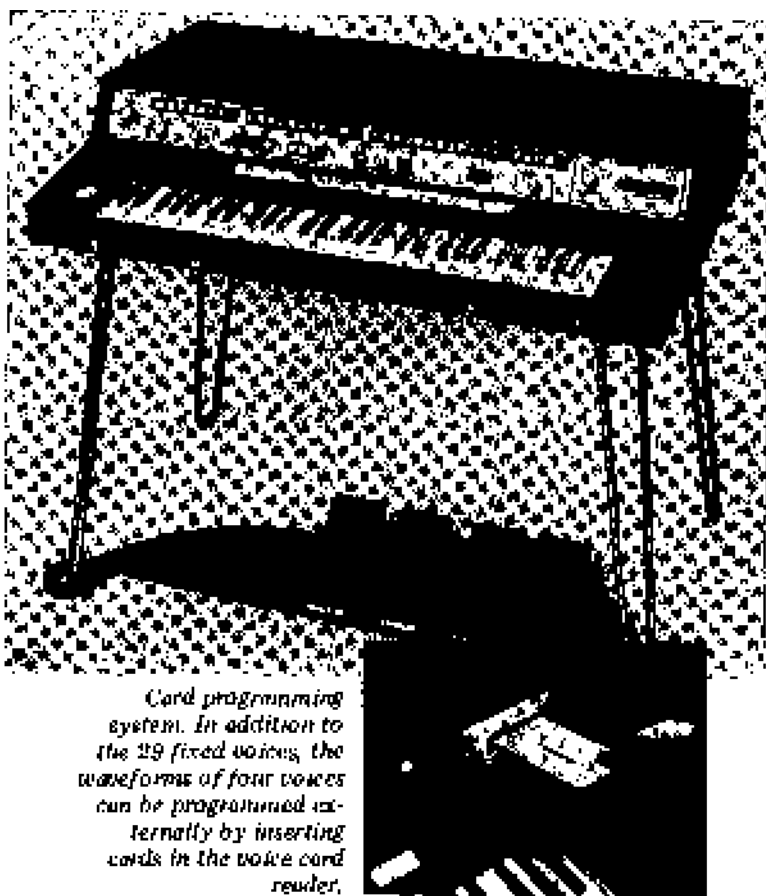


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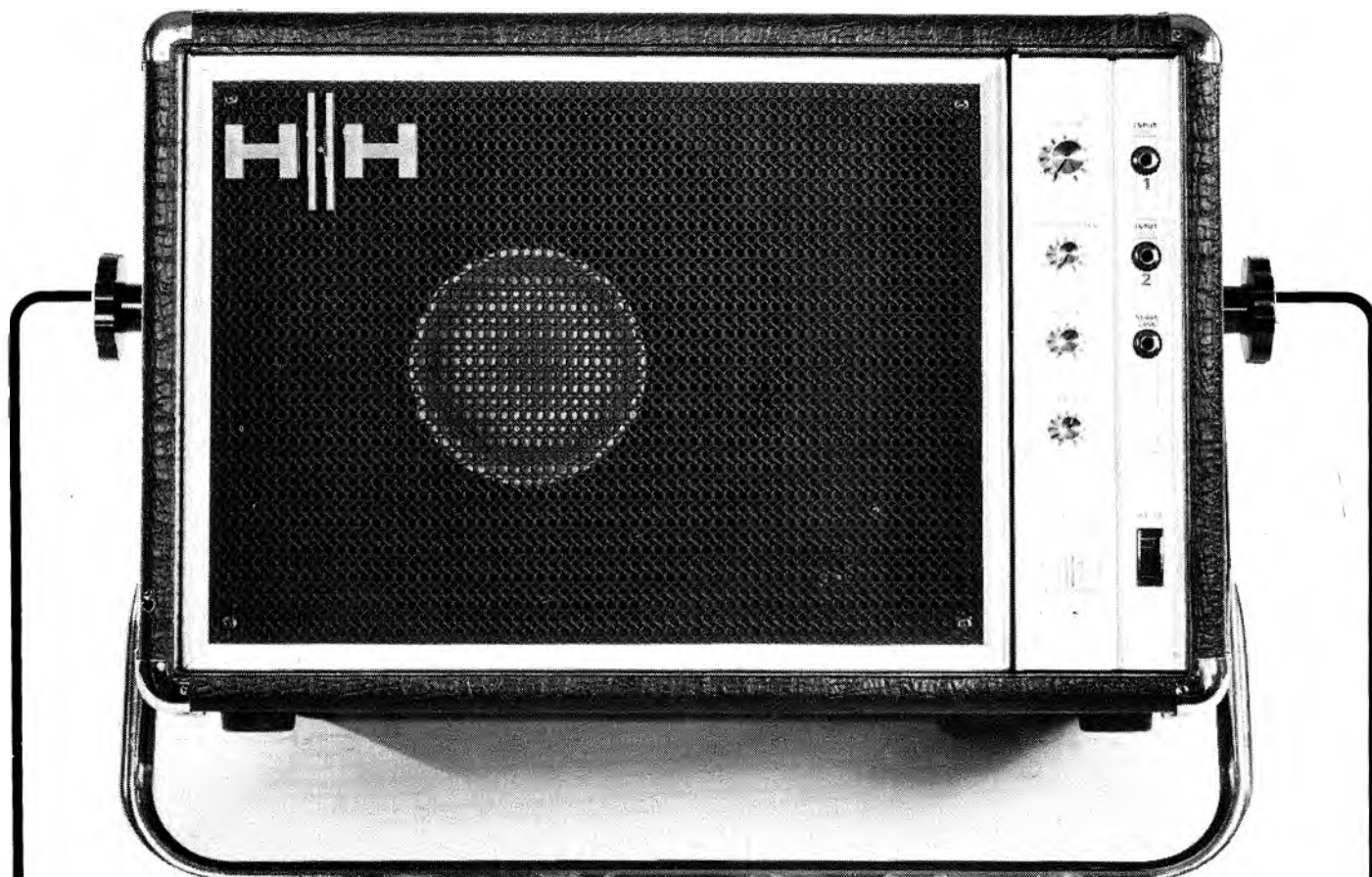
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HOME RECORDING: MONITORING

Choosing a monitor cabinet is far more than just buying the best you can afford. Consider size, consider frequency response (don't spend a fortune getting a low response, down to 35 c.p.s., unless you're going to record a full pipe organ. Really, the effective frequency ranges are under 45 to 20KHz and the hard-to-get bass is often unnecessary. Some speakers are designed to operated in a 2 pi situation in a corner with a side reflecting wall. Make sure you mount the monitor speaker in a situation suitable to its design. It will be necessary to delve into greater depth than published specs. to establish whether a speaker was designed to operate against a wall or free standing — a 2pi situation or a multi-pi situation.

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WHARFEDALE DOVEDALE SP	£154.23	Not specified	60 watts	45Hz - 20KHz	Choice	2 x 170mm	6 ohms
WHARFEDALE AIREDALE SP	£240.24	Not specified	100 watts	27Hz - 20KHz	Choice	250mm	6 ohms
AKAI SA - 1200	£207.60	670 x 360 x 270	60 watts	35Hz - 20KHz	Walnut	30cm	8 ohms
TANDBERG 2520	£140 - 157	12" x 21" x 8¾"	65 watts	45Hz - 20KHz	Choice	8"	8 ohms
TANDBERG 3520	£197.50	14" x 23¾" x 10¼"	75 watts	45Hz - 20KHz	Choice	10"	8 ohms
SONY SS3050	£159.90	22¼" x 12½" x 11½"	100 watts	Not specified	Not specified	250mm	8 ohms

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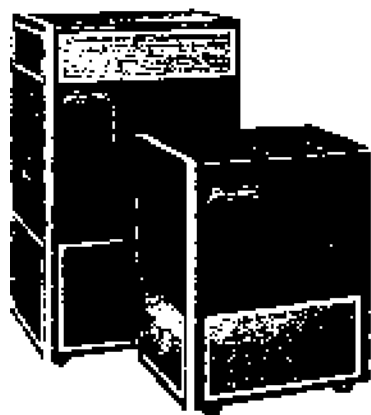
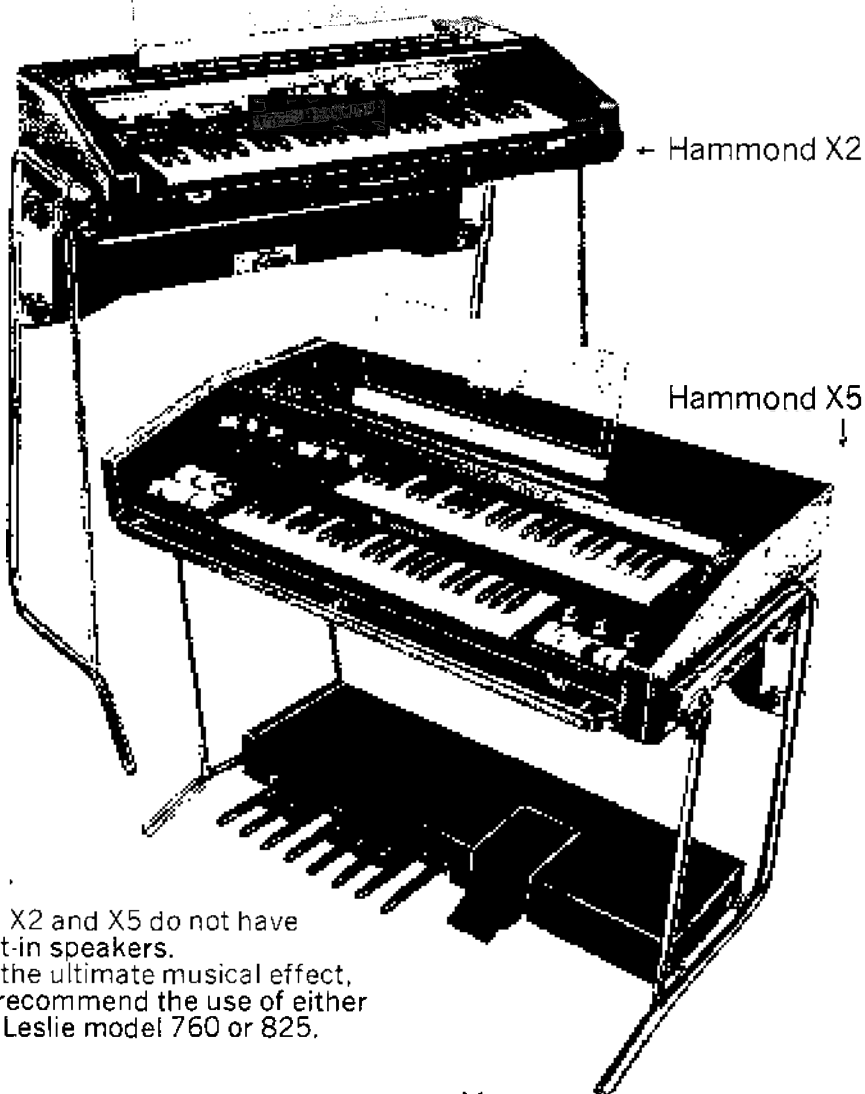
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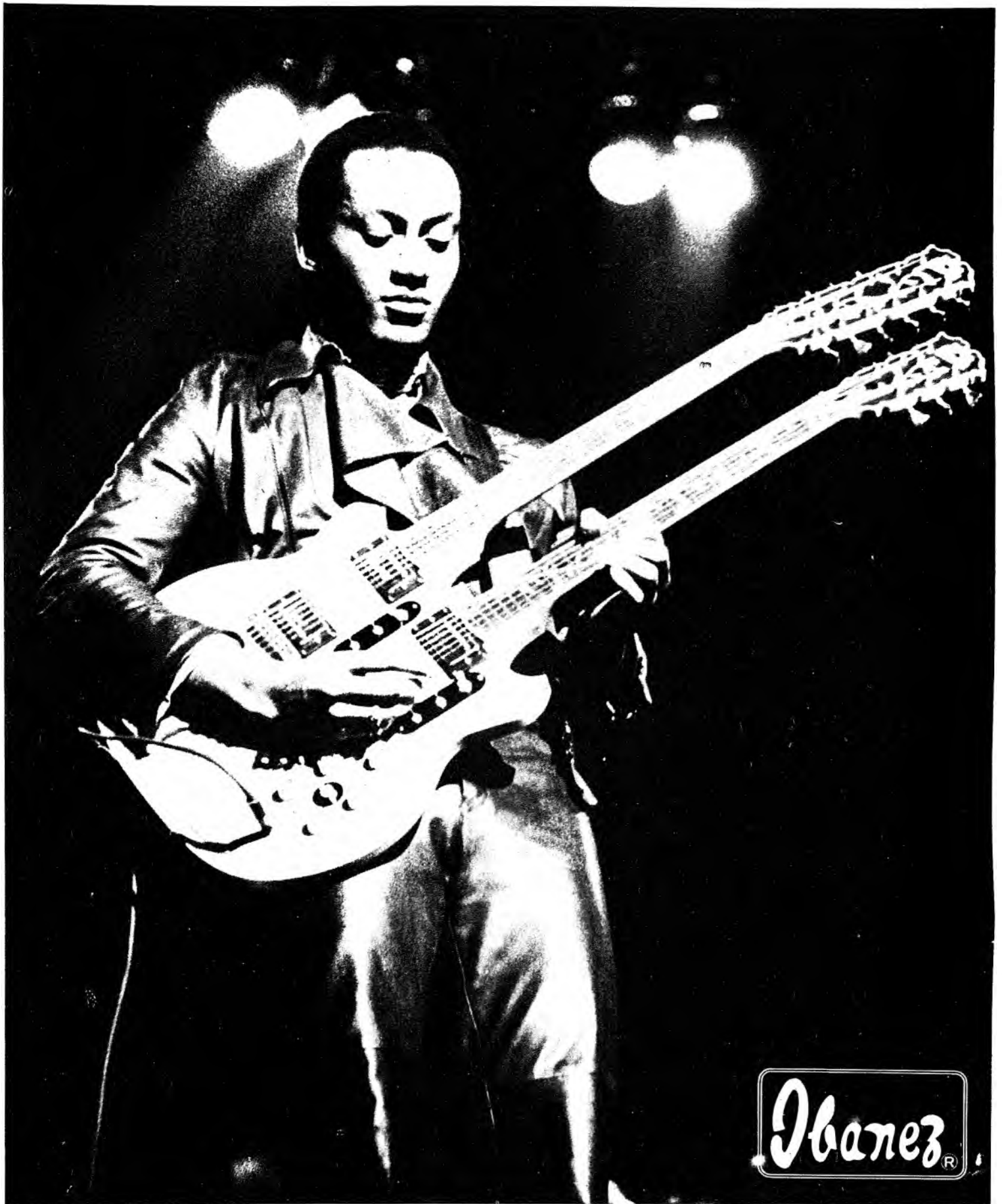
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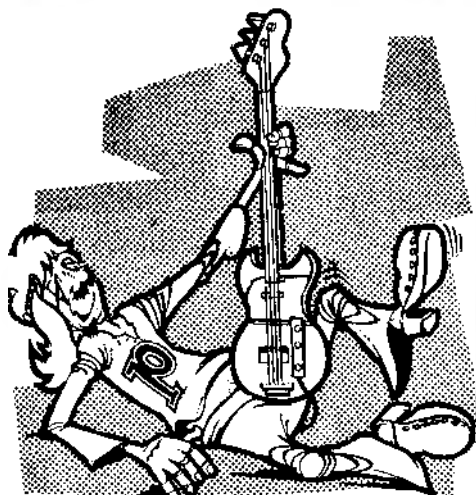


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from page 57

through the various mixing stages, the previous mix data being stored. The track is mixed automatically while an oscilloscope traces an electronic readout of the combined fader movements. Apart from the obvious advantages like removing all the brain strain attached to 24-track mixing and saving an incalculable amount of time, it also allows the engineer much more physical freedom. Since the sliders are voltage controlled, any group of faders can be switched together to operate from one fader. Thus, each mix can be reduced to three or four groups and then manually mixed.

This is an important "first" for Advision — it is in fact the first computerised mixing console to be installed in a European studio — and, as such, has been operating almost non-stop since its installation.

As well as Studios One and Two, the Advision complex also houses a film dub-

bing theatre — used exclusively for film work, incorporating both 16mm and 35mm facilities — and tape copy rooms for transferring from cassette or master to ¼ inch or vice versa.

Apart from the running of the Studio, Roger also finds time to engineer on various sessions. "Most of my time is taken up with the managerial side of things," he explained, "but I still do sessions — mainly with people I have worked with before. I do get a great deal of enjoyment out of it."

He is currently working on the new Gentle Giant album and is soon to start recording Druid's second album. Roger has also, in fact, just completed the gargantuan task of engineering an album with Keith Emerson and the London Philharmonic Orchestra.

After starting off as a trainee engineer and working his way up over fifteen years with Advision to Studio

Director, Roger has seen a lot of changes made. "There has been a lot of changes over the years — multi-tracking was a very important change but that happened gradually. I would say the most significant total change has in fact been computer mixing."

Roger told me that Advision was presently booked round the clock — a pretty good sign in these days of economic recession. I wondered where most of their business came from. "Well, we spend more physical time recording rock groups, because of the method in which they work — laying down separate parts on separate tracks. When we do advertisements or orchestral recordings, it's all very much pre-arranged. I think the percentage is relatively equal across the board."

Roger attributes Advision's success to the staff at the Studio. "The service and the sound is very much tied up with the high stan-



dard of engineering here. It's really all down to the people. I think it's taken for granted that we have superb equipment here, but the equipment itself is probably only incidental to our success."

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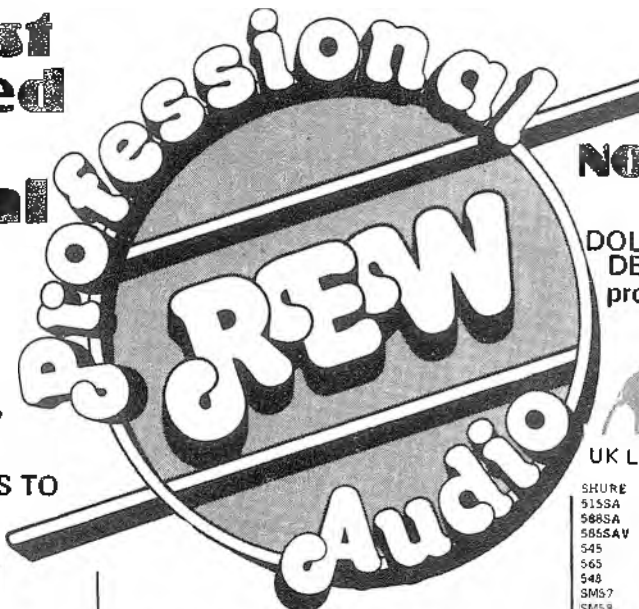
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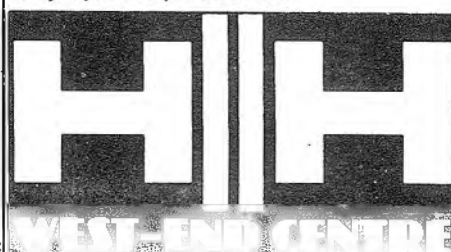
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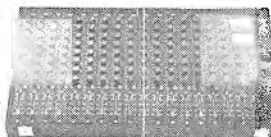
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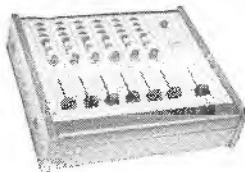
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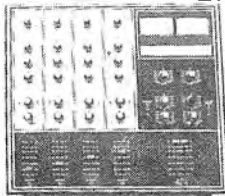


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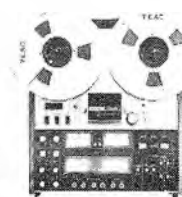


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STUDIO DIARY

ADVISION . . . Keith Emerson was recording with Roger Cameron engineering . . . Chas Chandler was producing an album for another ex-Animal Eric Burdon . . . engineer Paul Hardiman was working with stars of stage, screen and Berkhamsted, Druid . . . The Baker Gurvitz Army were recording a new album for Mountain with Eddie Offord engineering . . . Gentle Giant were in with engineer Paul Northfield . . . prior to his recently announced retirement, Gary Glitter recorded a new single produced by Mike Leander and engineered by Paul Hardiman . . .

BASING STREET STUDIOS . . . A Camel album was engineered by Rhett Davies . . . Caravan were recording an album with Dave Hitchcock producing and Phil Ault engineering . . . Commander Cody and The Lost Planet Airmen used the mobile with producer Joe Boyd and engineer Tony Anderson . . . Toots and The Maytals recorded with engineers John Burns and Dave Jordan . . . Phil Manzanera was producing a live Roxy Music album with engineer Chris Mickey . . . Supertramp's Albert Hall gig was recorded on the mobile and engineered by John Janssen and Frank Owen . . . Phil Brown engineered a Stomo Yamashtabina-beautifulbaby album . . . Chris Rainbow was recording an album with engineer Phil Ault . . . Kevin Ayres was recording an album with Muff Winwood producing and Rhett Davies engineering . . .

CENTRAL SOUND . . . Miki Anthony was recording for A.T.V. with engineer Simaen Skofield . . . producer Tony Hillier was working with Brotherhood Of Man . . . Ed Welch was in producing some material for arch-Goon Spike Milligan . . . Jan Olofsson was recording with producer Roy Morris and engineer Simaen Skofield . . . Dana was recording with Johnny Coleman producing

FREERANGE STUDIOS . . . Al Stewart was recording demos with engineer Simon Tassano . . . Tony McAuley was recording material for an animated film . . . Ten Years After's Chick Churchill was laying down demos with the assistance of engineer Laurie Dipple . . .

GOOSEBERRY STUDIOS . . . Tony Anthony was working on a single for MAM with engineer Ron Eve . . . Brian Knight was recording an album for Black Lion . . . Tony Simons was in laying down some demos with engineer Ron Eve . . . Paul Grade was working on a pilot album for a musical . . .

IMPULSE STUDIOS . . . Five Hand Reel recorded an album for Rubber Records with Geoff Heslop producing and Micky Sweeney engineering . . . Prelude were in recording various tracks with Micky Sweeney engineering . . . Ray Jackson cut a few tracks and an act called The Dragoni Brothers laid down some demos . . .

INDIGO . . . New signing to Chrysalis, Dave Durant was recording an album produced and engineered by Dave Rohl who also co-wrote some of the material . . . Local Manchester band Harpoon laid some tracks down for Ice Productions with Dave Rohl producing . . . Mike Harding, of "Rochdale Cowboy" fame, recorded his new single for Rubber Records, engineered by Dave Kent Watson . . . Ritchie Close demoed some of his own material with Dave Kent Watson engineering . . . Some members of Barclay James Harvest were in "experimenting" with Dave Rohl . . . D.J.M.'s latest signing Mel Dean cut some demos with Kaplan Kaye producing and Dave Rohl engineering . . . Therapy, a local folk group, were in recording under the supervision of Dave Kent Watson . . . Paul Stewart cut some demos for Ice Productions with Dave Rohl producing and engineering . . . Piccadilly Radio disc-jockey Phil Griffin chose Indigo Studios for a programme explaining multi-track recording techniques.

MARQUEE STUDIOS . . . engineer Phil Dunne still busy working with producer Gus Dudgeon on the new Colin Blunstone album for Rocket Records . . . Phil and Gus also worked on the second Howard Werth album for Charisma . . . Recent chart successes from The Walker Brothers and R. and J. Stone: were recorded at the Marquee Studios . . . Champagne recorded a new single for Thunderbird Records with engineer Steve Holroyd and producer Mick Green . . . "forces sweetheart" Vera Lynn recorded a single, "Do You Remember When", produced and written by Lynsey De Paul, engineered by Geoff Clavert and featuring Ringo Starr on tambourine and vibes . . .

STRAWBERRY STUDIOS . . . a new Syd Lawrence album was recorded for Phonogram with producer Rick Dixon and engineer Roger Wake . . . Alberto Y Los Trios Paranois cut an album with Phil McDonald engineering . . . Five Penny Piece (from T.V.'s That's Life) produced their own album with engineer Pete Tattersall . . . Child a new signing to Buk Records, laid down some tracks with Geoff Gill producing and Pete Tattersall engineering . . .

TRIDENT . . . The Girls were in recording produced by George Garravenand engineered by Pete Kelsey . . . Miami 305 produced an album themselves with Nick Bradford engineering . . . Max Merritt and The Meteors laid down some tracks for Arista with Dave Chatler producing and Pete Kelsey in the engineer's chair . . . West African Cosmos did some overdubs for C.B.S. with Philip Cassforain producing and Steve Taylor engineering . . . Leo Sayer was in recording under the guidance of producer Adam Faith and engineer Pete Kelsey . . . Gilbert Becaud came over to record with Marcelle Stelman producing and Pete Kelsey engineering . . . continuing their Anglo-French relations, Trident were also host to The Richie Family who were produced by Jaques Morrele and engineered by Gerry Smith . . . David Essex was in re-mixing his new single with producer Jeff Wayne . . .

GROSVENOR STUDIOS . . . The Tony Robinson Jazz Band, Muscles and the BRMB Radio Orchestra recorded programmes for BRMB Radio, all of which were produced by John Whatmore and engineered by John Taylor . . . Method recorded an album with producer Howard Huntridge and engineer John Taylor for U.K. Records . . . Sultan Pepper and Drifting Harmony cut singles for U.K. Records with the same team of Howard Huntridge and John Taylor . . . Jasper Carrott co-produced his new single for DJM with Chris Roman . . .

ZODIAC STUDIOS . . . First Aid were in doing a single and album with Jimmy Parsons producing and Mike Cooper engineering . . . Top Cat cut a single with producer Henry Haddoway . . . Guys And Dolls were in laying down album tracks with producer Dave Martin . . . popular Mersey band Liverpool Express recorded a single produced by Hal Carter . . . Ken Gibson produced a single for Jessie Green . . . Kenny Everett recorded various jingles . . .

MONITORING CABINETS

by Stephen Delft

A few months ago, some friends of mine needed three small monitor cabinets: cheaply, and in a hurry. I was in the process of re-organising my workshop, and there simply was not enough space to make the usual wedge-shaped cabs, even one at a time.

Nor could I find a source of wedge cabs, either empty, or fitted with modestly priced speakers. Out of necessity, I came up with a design for a simple adjustable support bracket, which can be fitted to almost any 1 x 12 or 2 x 12 cab to tilt it back at various angles. The original cabs were three 1 x 12's made by K.F. products, which seem to be available from many sources supplying disco equipment and cabinet fittings. They are inexpensive, and if you don't mind tightening and/or replacing most of the screws holding on the front panel, they are quite solidly made. (For such a low price, one doesn't mind tightening a few screws). There is no need to use this particular cabinet; many bands start off with something like 2 x 12 cabs for P.A., and after they graduate to a better system, the cabs are often ceded for speakers and fittings and left in someone's garage. When a monitor system becomes necessary, it is also, generally speaking, the time when money is most scarce, and it would be helpful if these cabs could be readily converted to monitors. Unfortunately, most square cabs are almost impossible to tilt securely at a suitable angle for the vocalist(s). However, if you can use a blowlamp, a hacksaw, an electric drill and a large file, you can make them tilt safely, and without the risk of their tipping into the front row of the audience.

The bracket is basically a piece of aluminium alloy strip about 2 1/2" by 3/16" and about 4' long. (The exact length depends on your cabinet). The metal came from Smith's Metals in St. John Square, but you could also try your local non-ferrous metal stockholder. There are different alloys available; the one I used softens and may be bent below red heat, and, on cooling, regains most of its original stiffness. Tell the stockholder what you want to do with it.

You will also need to write, or go, to Picador Engineering at 83 Euston Road, London N.W.1, and buy large metal knobs (as fitted to machine adjustments) with 1/2" Whitworth FEMALE threaded inserts. I think the largest size is about 3" or 3 1/2". You will need two per cabinet, as well as two spiked washers, about 10 plain washers and two bolts (square or hex head) 2" long, all 1/2" Whitworth, to fit the knobs. The knobs may seem expensive at nearly £1 each but they are essential if you are to be able to clamp the tilt adjustment firmly without hurting your hands. They are also big enough to act as comfortable carrying handles.

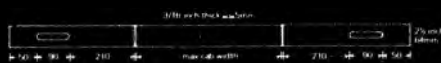
The blow lamp mentioned above needs to be a decent size with a flame at least 1/2" wide. Needle flames are a waste of time on this job, and if your torch uses gas-lighter refills, it will probably cost you less to have the local garage or engineering works bend the strips for you. On the other hand, if you have a Siefert or Calor Gas blow torch or a good blow lamp, it will be cheaper to do it yourself.

Prop up the cabinet the way you will want it, (generally with speakers side-by-side if more than one) and measure the maximum width in mm. (horizontally). For the K.F. cab, add 708 mm. to get the total length of each strip, and a further 100 mm. when cutting, to allow for not getting the bends quite central. For other similar small 1 x 12's and 2 x 12's add 900 mm. to the width of the cab, plus 100 for safety.

The drawing below gives dimensions for the K.F. 1 x 12's but you should be able to adapt it for other cabs. Prop the cab up at a good average angle and experiment with a cardboard bracket, using drawing pins as pivots. When you get it right, extend the pivot point into a slot or a row of holes to give a suitable variation of angle. Mark your cab width in the centre of the strip, add 4 mm. at each end for the bends and transfer the dimensions of your cardboard mock-up onto each end.

You will need a row of pivot holes in each arm of the strip, unless the monitor cab is for one very specific use; if you extend the holes into a continuous slot, it hardly matters whether you bend the two side arms to slightly different lengths, and the angle is more easily adjusted. You can drill holes in the strip with a 3/8" hole-drill. This has a bush, carrying a small piece of hacksaw blade bent into a circle around a much smaller drill. Black and Decker make good ones, but I don't know whether they go down to 3/8". You could also try Picador, who have most metal work tools, or Mate Tools, Freepost, Hoddeston, who will send you a catalogue (and seem to be the nicest people in the postal tools business). Whatever you use, you won't get very far in hard alloy unless you centre-punch the hole centres first.

Cut a piece of 3/4" ply or chipboard for hardwood, if you have it to spare; a little wider than the strip and the same length as the width of the cabinet. Place this under the strip to be bent, *exactly* level with the two lines marked to the cabinet width, and clamp both across the corner of a bench. Take one end at a time, rest your hand on the overhanging end and heat the strip thoroughly along the 4 mm. spaced lines until you feel the end sag with little more than the weight of your arm. Remove the flame and take about two seconds to bend the strip at a right-angle. Repeat at the other end without loosening the clamps. (Try not to set fire to yourself, the bench, or anything on or under it. A polythene bag covered in a soaking wet Radio Times will absorb an amazing amount of heat. Don't be surprised if the chipboard catches fire!)



The second drawing shows the place to drill a 1/2" hole in each end of the cabinets I was using. Again, you can find the place on your own cabs with a card and pin tryout. Slide the spiked washer onto the bolt and just before it reaches the head, smear it thickly on both sides with Epoxy glue. Push the bolt out through the cab hole from the inside, add about 10 washers to reduce the length of thread to roughly 1/2" and tighten up with one of the knobs until set. Do the same at the other side. Leave for at least two and preferably 24 hours, in a warm place. Remove knobs, and washers one at a time, until the tilt bracket fits, with its bends square. Add one more washer on each bolt and replace knobs.

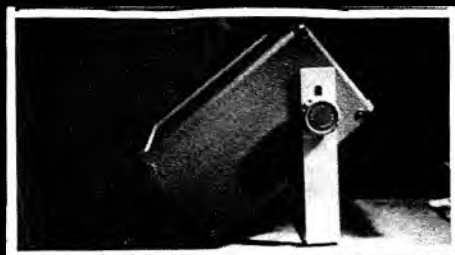
That's all there is to it. The rest is the same for any "short throw" cabinet. The speaker arrangements may be as complex as your cabinet and/or pocket permits. If you want the very best, speakers for monitors can be more expensive and difficult to set up than those for P.A. cabs, but you can get reasonable results with middle price so-called "full range" 12" units, and 50 watts per cab is enough for most club and pub gigs. There are many such speakers available, including Goodman 12 P.D., Fane Professional series and Crescendo P.A. type, B.C.F. L.12 P.12, and L.12 P.24, Gauss 12" "full range" J.B.L. 12" "extended range", and so forth. My choice would be the Goodman 12 P.D. for lowest price, or the B.C.F. L.12 P.24 for best value for money. To spend more than this on speakers means that it ceases to be a cheap monitor cab, and that's the whole point of the article.

Forget about horns in monitor cabs unless you can afford (and design for) very good ones, nor will you need much extreme bass from vocal monitors, so just brace the cab back against the speaker magnet and loosely fill the cab with B.A.F. (acetate) or glass wadding. (B.A.F. costs more and glass makes you itch; take your pick).

If you are not used to monitors and they are not the very best, you are likely to have dreadful trouble with feedback. One never quite beats this, but you may find life much easier if the foldback comes from a separate power amp with good tone controls and two or three spot frequency filters. To the best of my knowledge, Peavey are the only company making such an amp at a reasonable price, but I would be delighted to hear about any similar amp, which can do the same job.

May I be allowed one small moan: Please, don't try to jump the queue for technical advice by writing directly to me or telephoning me at home. It isn't fair to me, or to other enquirers, and if it continues, I shall have to stop answering questions altogether. Sorry, but I do need some time to be a guitar maker, or I become unhappy.

If you send technical enquiries to me, C/O the Editor, they will be answered, either in the letters page, or directly. We also are always pleased to receive your opinions on any part of the magazine, or on improvements or changes you would like to see. □



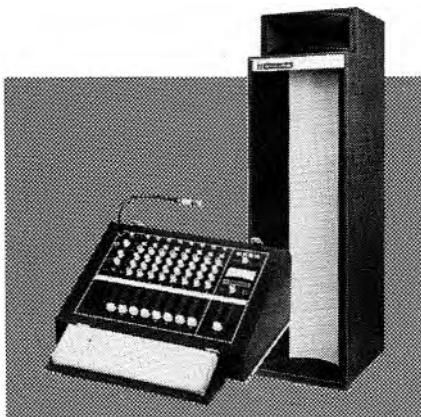
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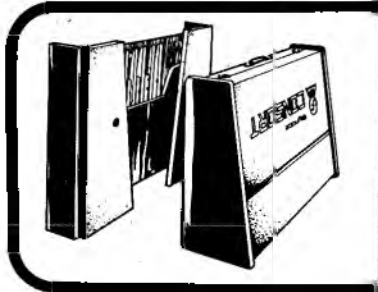
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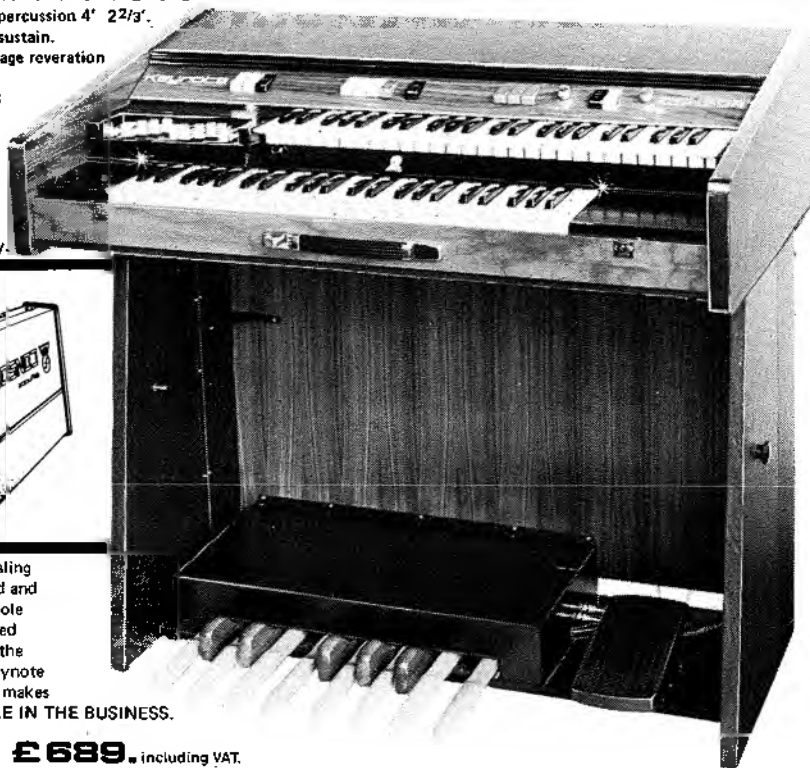
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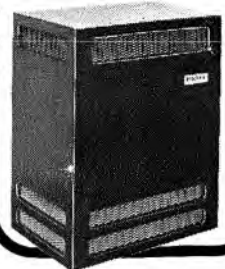
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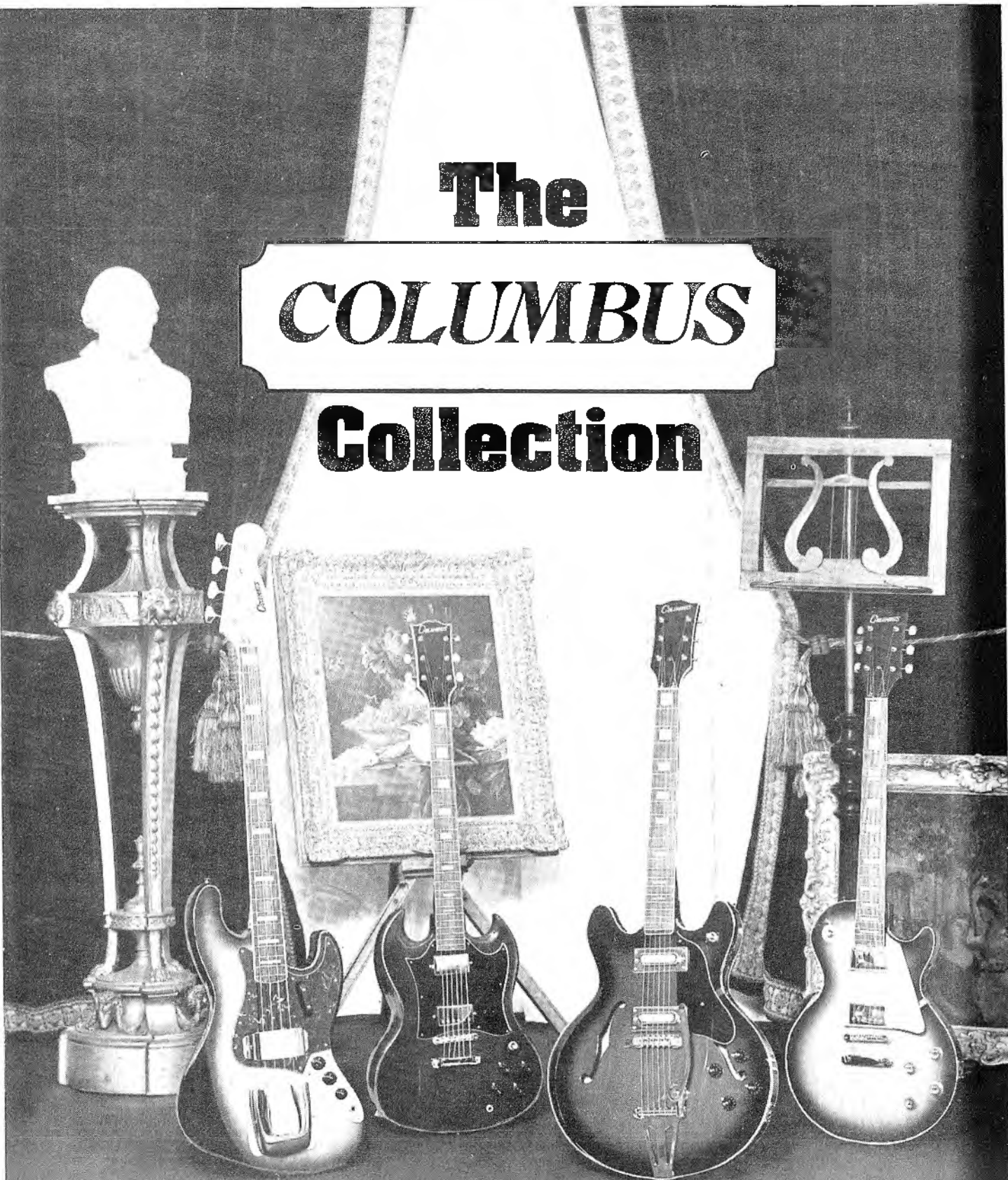
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There's a definite buzz going around for Thin Lizzy, and it's not too difficult to figure out why. They're a bunch of grafters — they're not frightened of hard work and, fortunately, it seems to be paying off. Originally a three-piece from Dublin consisting of Phil Lynott (bass) Brian Downey (drums) and Eric Bell (guitar), Lizzy came to London in March 1971 and proceeded to slog round the smaller clubs and pubs doing a mixture of their own material and "heavy" standards. I first saw them in The Greyhound, Fulham Palace Road, about four years ago, playing to a hundred or so people. Phil and Eric had only one 4 x 12 cabinet each, and the vocals were going through a modest 100 watt P.A. system. Their own numbers didn't immediately impress, but Eric's rendition of Jimi Hendrix's "If Six Was Nine" was certainly worth the trip down there.

We're down here now because Scott's brother-in-law Bobby from Supertramp recommended it. We asked for John (Alcock) to co-produce it with me, because the last one was a bit of a strain for me to write, sing, play and produce.

"John knows this studio really well, so I think it's a good idea. We had a bit of criticism for the last album — people saying it was technically good, but lacking the sort of live raunchiness. But the whole band sounds better now. When we did the first one, we were only three months together, and we were rushing to get it done. We're rushing this one, but the band has got the experience now and we're used to working under that type of pressure. The material is stronger as well."

The urge to split the band following Eric's departure was present, and Phil nearly did give in to it.

poraries in the rock field. He has already had a book of poems published. I wondered if he ever felt restricted in his bass playing by having to concentrate on his singing?

"Sometimes — especially when I'm learning a number. If I've written a song and I know the vocal line but haven't worked out the bass line — then I find it hard. But then other times I've listened to live tapes we've done, and I've played better bass when I've been singing than in a solo or something like that.

"Sometimes it works for me and sometimes it works against me. It's just a sort of independence I've mastered and, like all independences, you forget about it once you've got it. I sometimes find simple things very confusing, and the more difficult parts come easy.

"I've started experimenting a bit lately. I mainly used to write the rocky numbers on bass



Phil Lynott

The pub scene began to blossom that year, and Lizzy made sure they played every one, interspersed with occasional "prestige" gigs at the Marquee. They landed a contract with Decca and released three albums — *Thin Lizzy*, *Shades Of A Blue Orphanage* and the widely acclaimed *Vagabonds Of The Western World*. Early '73 saw them in the singles charts with a new arrangement of the traditional "Whiskey In The Jar" and the proverbial doors began to open for Lizzy. But were they the right doors? Headlining tours, press receptions and countless *Top Of The Pops* appearances were readily available for the band, but their follow-up single "Randolph's Tango" failed to click.

There must be a mathematical formula which equates failed follow-ups with rapid drops in popularity. Anyway, Lizzy more or less found themselves back to square one. Their booking fee was higher after the hit, but snide comments about "one-hit wonders" abounded.

Still, they continued to work harder and harder. With a change of label — Vertigo — the band seemed headed for a new lease of life. *Night Life* was released in 1974, followed by *Fighting In '75*. By now, there was a "new" Thin Lizzy. Eric Bell had left, unable to stand the pressures and rigours of continual touring, and was replaced by ex-Skid Row man Gary Moore. Moore eventually split from the band to pursue a different musical direction with Jon Hiseman. Always "a bit of a technician", Moore didn't really slot comfortably into the concept of Thin Lizzy.

The "originals", Lynott and Downey, are still there, but the guitar line now consists of American Scott Gorham and Scotsman Brian Robertson. I met Phil at Ramport Studios, where Lizzy had just completed recording their new *Jailbreak* album, produced by John Alcock. Phil was still busy supervising the mixing of the album, but he found time to talk about Thin Lizzy Mark One, Two and Three.

Sitting in an office above the control room, I asked Phil why they chose to record the new album at Ramport.

"Well, this is the third album as we stand now. The first one was done between Olympic and Trident. That turned out quite well — we had Ron Nevison and myself. And then I decided to try the next one on my own and we did it at Olympic, and the sound got better.

"Well, I was going to pack it all in. Me and Brian were going to go home to Ireland and take it easy, but the *Vagabonds* album went into the American charts and every album since has. We'd only been to America once — that was last year — but it showed me that there was enough people believing in what we were doing for us to carry on."

Phil sees Thin Lizzy now as a completely different band from the trio that recorded the first three albums. "For me, the first band died when Eric and then Gary left. Out of that came the new band. Since this band, we've been around the world so we haven't been able to concentrate on England a lot, but it's coming on a lot stronger than it ever was."

The current line-up have been together for just over 18 months — long enough for them to have established a natural "feel" for working together, and the additional guitar has lent a new flexibility to Phil, both as a player and as a writer.

"It's far more interesting as far as arrangements go, for a start. Instead of thinking about a third line, you can actually jump straight in with one. You can add balls wherever you want, whereas if someone is taking a solo and there's no rhythm guitar going behind it, it really holds down the bass and drums. If there's two guitars, then you can really start to hop."

Phil is still playing his Rickenbacker bass, but bought a Fender Precision when the Ricky went in for an overhaul. I asked him why he didn't get another Rickenbacker as a spare, after having got used to it. "What's the point in having two fuckin' Rickenbackers?", he replied with a gentle laugh.

Er, I actually meant why did he change to a completely different guitar? "Well, I'm not that rich, so I thought I might as well get something different. I mean, a Fender's not that bad a guitar. The Rickenbacker is a far more original and . . . exciting sound. Everyone who plays one gets their own particular sound, whereas a Fender seems to adapt the bass player to the guitar."

Phil writes the bulk of Thin Lizzy's material as well as taking lead vocals and playing bass. Unlike a lot of "rock" songwriters, Phil's lyrics stand up on their own. I hesitate to use the word "poetry", but nevertheless, his writing has a lot more depth than most of his contem-

guitar and the 'love' songs on acoustic, but I've got a drum machine and a Teac at home now and I can approach songwriting a bit differently. I can put on the rhythm box and do a rhythm guitar part, then put on a bass and figure out what to sing over the top."

Phil also tends to spend a lot of time in the studio after the tracks have been laid down. This particular day, he had been at Ramport mixing the album since nine that morning. "I like to spend as much time as possible on the mix," he says, "but the more time you get the more time you want. We've never got enough time, but we always have a fair crack at it. If there's no mistake, it can work out well."

I had already witnessed an example of the time and care taken during the mixing of the new album. While I was waiting for Phil earlier in the control room, a track about five minutes in length was played about a dozen times as Phil listened intently to an intricate vocal part. Eventually, he detected a minute rise in level towards the end of the track and requested that it be altered for the final mix. Bearing all this in mind, just how well is he acquainted with the "tools" of the studio?

"There have always been very good engineers on our albums and they've always explained everything to me because I'm the type that will always ask questions. I tend to judge the final result just by ear — otherwise it can become just a technical thing — but I learnt what everything on the board does.

"Once you've got a basic understanding and you've got a good engineer, then it's all down to explaining to him what you want. It's just learning the terms — like saying 'Could you A.D.T. that, and could you pan this' — all these terms just come into your vocabulary. Now if you're asking me if I could engineer, then that's another thing entirely. Most good producers have gone through a whole course of engineering anyway."

Despite his evident ease in the studios, Phil's ambitions don't yet include a home studio.

"Well, the Teac's all I need at home at the moment. It's just for messing about on. If I had a house and I was one of them rich boys, then I'd consider it, but the Teac is great. I've got the mix-down panel and a two-channel cassette players. I've got a couple of split leads as well,

so I can cut the drum machine and a bass guitar onto one track, then I can put an acoustic guitar and lead guitar on. I can then mix them down to two, and put two vocal tracks on the other tracks. That's all I need because all I need it for is to show it to the boys."

Phil leaves a lot of room for changes on his songs. He doesn't insist on his song being done his way. "The boys always have their say with the songs," he points out. "But if it started to change in a way I didn't really envisage it, then we might stop doing it. Normally I have a pretty clear idea of what I want, and the boys usually pick up on the feel of it. Sometimes, I won't have it too worked out and the band will arrange it. It varies from song to song."

There's also a lot of room for improvisation on stage with Lizzy, Phil insists. "The band are pretty free, you know. I might write the song, but the interpretation has to be the band's interpretation of the song. The band is very equal. Because I talk a lot and I'm the one most people seem to recognise and I've been around the longest, everyone says I'm the image in a way. I mean, I'm the head, but you need the body and the legs to make the unit. Like Brian Downey — he's very quiet when it comes to business deals and production, but when it comes to the band — we really need him."

With their American following, I wondered if Phil thought the band's future is in the States. "Well, I'd like it to lie in America because that's where the beans are. I'd like to make enough beans so I didn't have to worry. Then I could do whatever I liked. I'd like to get that pressure of worrying about money off my head, y'know. But there's a lot of kids into the band over here. We've got a great following, and I think there's a void in the heavy rock vein that we could fill. Whether that's in England or America doesn't really matter to me. If you filled it in one place you'd fill it in the other anyway."

Thin Lizzy doesn't solely occupy Phil's thoughts. It's obvious from speaking with him that, although he's really into the band now, he fully realises there are other things he can do.

"There's stacks o' shit I could get together y'know, if I had time. I'd like to eventually get round to doing a solo album for one. I'd like to do another book. The publishers are chasing me for another one. I'd like to evolve, basically, but we're just too busy doing it."

THIN LIZZY



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PA SYSTEMS

BY KEN DIBBLE

There can surely be few aspects of the music business that cause more aggro to the musician or road crew than leads. A simple length of wire with some kind of plug at each end is usually the culprit when your amp starts buzzing or goes off altogether. How absurd that such an insignificant item of gear can render thousands of pounds worth of highly sophisticated P.A. equipment utterly useless. Even worse — a faulty mains lead can, and all too often does, lead to a death which could be your death. Think on it, please, and read on.

There are four equally important considerations to bear in mind when making up or buying leads, for whatever application.

- 1) Is the electrical rating of the plug suitable for the specified voltage and current?
2. Is the mechanical construction sufficiently robust for demanding use on the road, night after night i.e., being smashed on the floor, trodden on and otherwise abused?
3. Is the cable designed to carry the voltage and current for which it is to be used?
4. Is the cable sufficiently robust, adequately protected and sufficiently flexible? It will probably be used to drag amplifiers across the stage, and be rolled over by heavy speaker cabs on castors before it has been used many times for its intended purpose.

At first sight, this might seem a somewhat harsh assessment of the situation, but this is exactly the sort of treatment a lead is expected to stand up to in the heat of the moment — when the band is late arriving at a gig, or after a late night spot, when everyone wants to get the gear in the van and get away. Let's consider some plugs in general use and compare them to the above criteria.

The standard 2 pole jack plug would seem to be the accepted do anything, go anywhere

connector of the musical industry. Is it suitable?

It was originally designed as a cheap, convenient and relatively reliable means of quickly connecting low voltage, low current signal circuits requiring electrical screening from external interference, such as telephone circuits and the like, and for this purpose it is excellent. This intended application can be related to its use on microphone and electric instrument leads, where maximum voltages are not likely to exceed a few hundred millivolts at currents in the order of a few micro-amps, so for this purpose, the requirements of guideline 1 above are met.

The continuous AC current rating of a jack plug is typically in the region of two amps, and the spacing distance between the contacts, and between the connexion terminals and body shell are such that to comply with the safety recommendations of the British Standards Institute, the maximum applied voltage should not exceed 40 volts. To interpolate these ratings with the conditions likely to be found in loudspeaker circuits, both current and voltage maxima will be met when 100 watts are fed into a 16 ohm loudspeaker, and the current maximum will be reached when 50 watts are fed into 8 ohms. Each condition will result in a current in the order of 2.5 amps, while the 16 ohm condition will have the full 40 volts across the loudspeaker. It can be argued that a musical signal does not represent either continuous current or voltage, but in the case of electric guitar or keyboard instruments, high output levels are often maintained for long periods of time and so, to all intents and purposes, must constitute a continuous condition.

Consider now the mechanical aspects of a

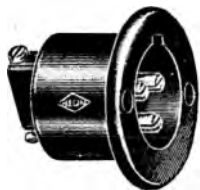
jack plug. For low level signal usage, any reasonable quality item having a screened body shell and an adequate cable clamp assembly should prove to be suitable for the purpose. Obviously, a more substantial product will stand up to more abuse and generally prove more reliable, but it is doubtful if it will be any better from an electrical point of view.

For loudspeaker circuits however, we have other design points to consider. If a jack on a mic or instrument lead shorts out or goes open circuit, all that happens is that the equipment stops working for a few minutes until the fault is identified and a spare lead brought into service. In the case of a loudspeaker lead however, the same fault can easily blow up the output stage of the amplifier, resulting in a ruined show and a mammoth repair bill. Therefore, if jack plugs must be used for loudspeaker circuits, care should be taken to ensure that the design of the plug allows no possibility of the two contacts shorting together, and that a plastic body shell is fitted to eliminate any possibility of the contacts shorting together via a metal body shell. A further requirement is that a particularly good cable clamp be incorporated into the design, as loudspeaker leads generally seem to be subjected to more wear and tear than mic leads.

For many years, I have believed that a jack plug is not really a suitable connector for use on loudspeaker circuits, and I would very much like to see manufacturers move away from this practice, and adopt an alternative standard connector that is both mechanically and electrically suited to its somewhat of task. Wem are to be commended for their appreciation of this problem when they started to use a non-standard version of the Bulgin mains plug on their higher powered speakers.

FIG A
Standard Bulgin P74 type
mains connectors showing:-

a) normal chassis mounted plug.



b) standard axial entry cable socket.



c) recommended alternative connector with side cable entry, one-piece machined sockets and good cable clamp.

FIG B
New Cee-22 type continental
mains connector showing



a) normal chassis mounted plug.

b) screw terminal type cable socket.



c) recommended smash-proof socket moulded to cable.

Guitar Renovation Part 3

In February of this year, we commissioned Stephen Delft to do a series of articles on renovating a Telecaster. In the first of the series, Stephen discussed dismantling the guitar and the proper use of Amalgamator. Last month, he covered patching colouring improving and protecting the amalgamated surface. This month's article deals with chemical stripping, a process which requires extreme caution, as well as some pre-cautions.

Stripping off an old finish entirely.

Rule 1: Don't even *open* a can of Chemical Stripper unless you are wearing goggles or preferably a "Whole-face" shield as supplied by Pulsafe/Clearways. (See photo.) The transparent bit can be replaced cheaply when it becomes scratched. While many retail shops sell paint stripper, regrettably few of them sell suitable eye protection for people using stripper — apparently there is little demand. One is drawn to the conclusion that either most users don't know what Methylene Chloride can do if it splashes in your eye, or they prefer to assume that it won't happen to them. Although the milder gelatinous types such as Polystripa are safer to use, any stripper may splash during brushing or pouring, in the most unlikely directions. Please don't take chances: an underwater swimming mask is better than nothing.

By the way, cans of stripper should be kept cool and the right way up, which minimises their tendency to squirt as they are opened. Plastic industrial gloves, such as North's Plastochrome are probably a good idea also. In any case, only buy stripper which says on the container that it can be washed off with water; accidental splashes are more easily washed away under a running cold tap.

Polystripa also leaves less mess on the wood after stripping, and for most finishes I thoroughly recommend it. Certain very hard modern finishes will need Ronstrip or Cyclone stripper from Gedge's; these are definitely dangerous materials, and should be treated much more cautiously. If you should get stripper in your eye, flush with a large quantity of water or Optrex and head straight for your nearest Doctor or Hospital Outpatients Dept.

Rule 2: Paint stripper will also dissolve any plastic fittings, including the decorative bindings round the edges of body and/or neck. Cover these with masking tape, overlapping onto the body or neck by about 1mm, and well rubbed down. Try to keep the stripper just away from the edge of the tape. The lacquer under the tape should be sanded off when the chemical stripping is completely finished and cleaned off. (If you really understand the art of using a Cabinet scraper, you may prefer to use that for the edge strips.)

After those two warnings, it is relatively easy. Put down polythene sheets with newspaper on top and cover with clean white paper, and keep the room ventilated. Paint on two coats of stripper, each time allowing the finish to re-harden until it's like leather. Apply a third coat and leave until the shine disappears. You should now be able to lift off the old finish with an old table knife, or palette knife. If the finish is jammy, leave it to harden for a few minutes; if too hard, apply more stripper and leave until the shine goes. If the finish begins to crumble under the stripper but will not soften and peel off, it may be Polyester, which takes a long time to soften. You may find the upper coats come off easily but leave bits of the original Polyester finish underneath. In either case, give the difficult areas a good coat of stripper and seal it in a polythene bag to marinate overnight; then try again. Try this with Polystripa first; if unsuccessful, repeat with Ronstrip or Cyclone. If anything still remains, clean off the stripper, let the guitar dry, and sand and/or scrape the last bits off. Try 280 "wet-and-dry" paper used dry.

Try to keep stripper, particularly Cyclone, off bare patches of wood. Whatever may be printed on the can or bottle, wash off the last traces of stripper and old finish with cellulose thinners or equal quantities of White Spirit, Methylated Spirit and Acetone. Now lay down fresh white paper.

Remove the edge taping and clean up the edges and the whole guitar with Garnet or Wet and Dry papers starting with 150 and progress-

ing to 280 or 320. You may need a cork sanding block for the flat panels.

When the whole guitar is clean, lay down fresh paper and mask the fingerboard with tape. Thin down some clear lacquer with five times its own volume of thinners and apply one coat as a sealer, with a piece of clean white rag. When dry, check for bits which need more sanding. If necessary, you can easily sand through the sealer coat, and dab on more sealer when you are satisfied. The sealer should dry with almost no shine; don't be tempted to put on more, the matt surface is necessary for the filling operation which follows.

The story so far

Dismantling the guitar went exactly as planned. There was a small chip out of the side of the fingerboard, which I repaired with a piece of matching rosewood, while keeping well clear of the fret slots. I thought it better to keep the transfers on the front of the head; most people are unhappy if you return their guitar without its magic name on the head. This meant also keeping the lacquer on the front of the head. As the transfers are easily rubbed off, and the old lacquer must be cleaned before re-finishing, I compromised by rubbing the shine off with a Scotchbrite pad and White Spirit.

I rubbed the area around the transfers very gently, with the pad over a fingertip, and in the end had to accept a small shiny ring around each one. When the spirit was well dry, I wiped the whole face over with a clean white rag dipped in Acetone, and allowed it to dry. After a couple of hours, I lightly removed any attached dust and fluff with a clean piece of Scotchbrite. After cleaning with a tack rag, I gave the whole front of the head one coat of clear lacquer, thinned 50-50.

The rest of the neck was stripped next day with a cabinet scraper and Grade-O ordinary sandpaper, and the sharp edges at the front of the head were carefully rounded over to meet the edges.

Stripping with a cabinet scraper can be very efficient, but it can also leave the surface very uneven, and this increases the temptation to "Shave down the neck". Neck-shavers do so entirely at their own risk, and I recommend that you mask the front of the head, rub down the edges hard, and use Polystripa.

With the body, I was less lucky. There were old layers of polyester under the top coats of cellulose; I had to remove the Cellulose as far as possible and marinate the rest. Underneath the old lacquer, I discovered a fine looking body made from Ash wood, not the plain-looking and lighter wood that is used now. (Probably Alder or Poplar.) This harder and heavier wood may have quite a bit to do with the characteristics of old Tele's.

Unfortunately, Ash has alternating patches of hard and soft wood, and to avoid wearing down the soft parts, almost all the sanding had to be done with shaped blocks of cork behind the paper.

While the dense maple neck needed no pore-filler under the lacquer, the Ash body needed filling three times, and in retrospect, I would suggest four times. What time you save on filling, you will spend several times over on rubbing lacquer level — and filler is much easier to sand. I shall cover filling and spray finishing next month.

Meanwhile, you will need some pore-filler (grain-filler). I think the best one is made by Hill Son & Wallace, who have branches around the country. If you are finishing a Tele like ours, you will need Uncoloured Thixotropic filler and perhaps a little Ochre and Burnt Sienna "Earth colours". The same uncoloured filler will do for opaque paint finishes. For mahogany necks and bodies, you will need something like Dark Warm Mahogany Thixo filler, even for a light mahogany finish.

Opposite page, top row, left to right: After two coats of stripper — not quite ready (Note the area which was beneath the scratchplate has not faded); The corners rounded and the body sealed; Stephen Delft, wearing the Pulsafe/Clearways whole face shield he recommends for use when spraying and chemical stripping; After stripping and sanding, the corners may be too sharp and/or dented. Opposite page, below: After three coats, the Tele was allowed to dry leather hard and the finish is ready to peel off.



BEVERLEY AND AVEDIS ZILDJIAN THE SOUND OF SUCCESS

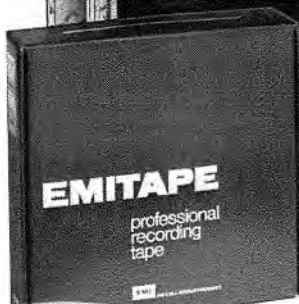


... ask Keith Smart and Charlie Grima (Wizzard), Peter York (Hardin & York), Harold Fisher, Robin Jones, Lesmie Hastings, Andy White, Clem Cattini (Top of the Pops Orchestra), Dougie Wright (Michael Parkinson Show), Bobby Gien, Stan Gorman, Edward Wesala, Fred Braceful, Pete Boot (Budgie), Hayden Jackson, Rex Bennett, Ken Hebden (Frankie Vaughan) and many, many more.

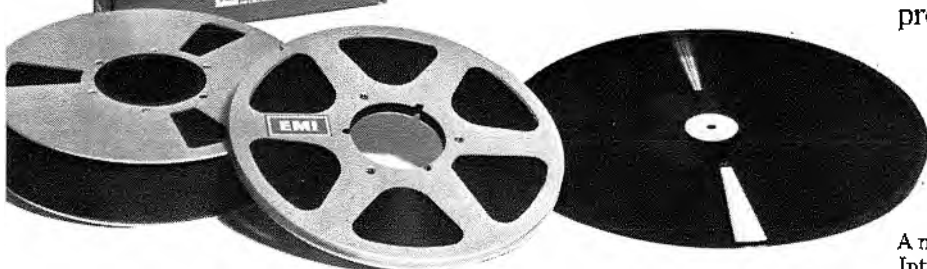
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Unfortunately, although this was electrically excellent, rated at 250 volts AC at 5 amps, and had a first class cable clamp, it was moulded from a bakelite material that shattered when given a good clout, or when crushed under a heavy cabinet. It was therefore unsatisfactory from a mechanical point of view, and has been discontinued.

Jack plugs, then, quite suitable for signal leads, provided you choose one of good mechanical construction, with a good cable clamp and with a metal body shell. They are not so clever for speaker leads, but as almost every manufacturer of gear fits jack outlets, there is no real alternative. Choose them with care, and ensure that the body shell is plastic, that the insulation between terminals is good and that the cable clamp is particularly good. Also connect with care and do not subject to excessive abuse.

Until very recently, most amplifiers have been fitted with the well known Bulgin P73 type mains connector. Electrically, this is a first class component and will provide safe and reliable connection of the mains lead to any piece of electrical equipment requiring up to 5 amps at mains voltage. It has however many mechanical drawbacks, and should therefore be treated with care and respect, in view of the very real possibility of electric shock from a mis-used mains connector. As stated previously, this type of connector is prone to shatter if subjected to a lot of throwing about, and the part more likely to break is the screw-on cover, which, when broken will leave the three mains terminals exposed. **IF THIS HAPPENS TO YOUR MAINS LEAD, FIT A NEW PLUG**

IMMEDIATELY — ALWAYS CARRY A SPARE, JUST IN CASE.

Another major problem with this connector is that the actual current carrying components are assembled by means of small screws which are not fitted with any means of locking. The actual sockets tend to work loose and eventually drop out of the plug, leaving a loose terminal inside the plug to flap about in the breeze and short onto the other two terminals. If either the live or natural socket came adrift, it would immediately be realised, as the amplifier would not switch on, and a fault would be suspected. However, should the earth socket drop out, it could conceivably not be realised for some time, and a very real danger of electrocution would exist until the fault was discovered and rectified.

For these and other reasons, this type of connector cannot be recommended, but again, as it is already fitted to 95% of all amplifiers made, the matter is not optional.

Fortunately, an alternative fully compatible connector of a far better design is available from the same manufacturers under part No. SA/2111. In this variation, the screw-on axial entry cap is replaced with a side-entry moulding, fitted with a really nice cable clamp, and a cover retained by two separate screws. Also, the current carrying components are machined in one piece, so that the problem of components dropping out due to loose screws has also been overcome. This is really quite an acceptable connector, and why it is not supplied with amplifiers as the standard mains plug by more than a handful of manufacturers is beyond my comprehension.

Even so, it still has a couple of snags, in that the mounting position of the mains input connector on the back of some amplifiers is such that a side entry connector cannot be accommodated, and also, that it is still moulded in a bakelite type compound and is therefore no less likely to shatter if abused. It remains to be seen whether the SA/2111 connector will meet the new electrical safety regulations when they are introduced later this year.

In recent months however, some manufacturers have discarded the old Bulgin P73 system altogether, and adopted instead the new international mains connector as recommended by IEC, and from first impressions, this certainly would seem to solve most of the problems. It is an oblong shaped connector having three flat pins in the chassis mounting half, and three corresponding pins in the cable half. The cable half is usually sold as a connector moulded onto the end of a length of substantial quality mains cable. Therefore, there are no screws at all in the assembly or termination, and no parts to come adrift or be otherwise interfered with, and it is moulded in a resilient smash-proof plastic. It is available as a separate plug only with screw terminals if particularly required, but it is suggested that the moulded cable assembly is far better suited to the musicians needs. This connector certainly will comply with the new safety regulations and its rapid adoption by the entire British industry should end, once and for all, the danger and problems hitherto associated with mains voltage connectors on portable equipment.

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HENRIT AT FRANKFURT



Ever since I've been aware of the existence of a musical instrument trade fair in Frankfurt I have been anxious to go. This year I managed to persuade the magazine to send me. I hoped that there would be percussion instruments from the European countries which would normally not find their way to England.

All the big guns of the American percussion scene were present in some force, but since I had seen a lot of the new hardware on Argent's recent U.S. tour, I was looking forward to the European and Asian exhibitor's products.

ASBA

ASBA are the most famous of the French manufacturers and have been making drums since 1928. We don't see too many Asba kits in Britain; like everything else made in France, unless it's government subsidised, it becomes prohibitively expensive. Asba's high quality wooden bongos and congas have been coming to England for at least 15 years but they too are very, very, expensive.

Asba were the first to make a stainless-steel drum set three years ago which, at £600 for five drums and snare, is good value. Unfortunately, this is the Paris price and the English price would be substantially more.

Pride of place went to a see-through set made not from Plexiglass but from a French equivalent called ALTUGLAS which, it is claimed, gives a much smoother, brighter sound. I tried a 6½" metal-shell snare drum which sounded nice and was beautifully finished inside and out. Snare tension could be adjusted at either end of a very positive strainer. Asba have a very interesting snare drum stand design which utilises two hemispheres inside a casting which activates and holds the playing angle adjustment. Without taking it

apart I couldn't possibly tell you how it worked, but it certainly did.

All of their bass drums have wooden hoops, and any tom-tom over 16" in diameter uses a bass-drum-like solid metal counter-hoop. Asba say this really heavy rim gives a much more authentic, "thicker" sound but I have my doubts.

The company makes marching drums especially for the French style of martial music. These drums are unusual in that they use metal shells (15 x 12) fitted with wooden rims. I first heard them years ago while working in France and their sound is definitely unique, bright and penetrating because of the metal shell, while the tone is tastefully mellowed by the wooden counter-hoops.

The famous lemon tree and mahogany coopered bongos have been slightly over shadowed by two pairs of relatively new hand drums made of stainless-steel and Altuglas respectively. I had no opportunity to test them.

Asba have been making well respected and well copied foot pedals and hi-hat stands for years but unfortunately these very, very, sturdy accessories are ridiculously expensive here and thus no match for the Japanese competition. It's a shame that our economic problems make it impossible for them to sell in our country.

AUTO-TUNE

The Arbiter Auto-Tune drums were having their second showing in Frankfurt since they were unveiled here just a year ago. This revolutionary product had a very good display on a tastefully decorated stand. The drums themselves haven't changed since I carried out the road test on them late last year, although the snare stand seems to have been improved a little so now it's just a question of getting them on to the market. Jon Hiseman was demonstrating the drums several times a day but I was running around like a blue-arsed fly and didn't manage to catch any of them. Funnily enough, while I was there one of my American friends told me about a Mancunian called Jimmy Reno who took his version of the Auto-Tune system to the U.S.A. in 1946 or 7 in a vain effort to sell his idea to an American firm.

BEVERLEY

The Boosey & Hawkes stand was showing the well made Beverley kit. These drums are direct competition for the cheaper end of the Japanese market and since they make all of the larger sizes these days, they are an attractive and reasonably inexpensive alternative.

These too are French manufacturers and are actually responsible for building "Orange" drums (Popular opinion has them made

by Asba, who were less than flattered when I suggested it). Orange drums aren't available in England yet but evidently sell very well in France and are Asba's only real domestic competition. They make all of the modern drum sizes starting from 10" diameter up to a 20" Bass drum, but as far as I could determine don't make a deep metal shell snare drum. Their foot pedals are quite unique: they are attached to the bass drum rim by a long fixed tube extending and fixed diametrically from top to bottom at the batter side. Both the hi-hat pedal and bass drum pedal are sold in America by Remo Belli's pro-mark company which must be proof of their quality.

The hi-hat has twin expansion springs mounted on its top tube and a bicycle chain pull instead of a plastic one. All of the stands have unique and efficient racing-bicycle-type quick-release height adjustment.

The tom-toms have a strange double spring-rod leg system rather like Trixon used to have on their very early tom-toms. These too were activated by a quick release mechanism. The tom-tom holders were like nothing I've seen before and very Spartan in their approach. S.A. Capelle also make huge orchestral bass drums and tympani.

EVANS

Evans Drums Heads from Dodge City, Kansas rather surprisingly had their own stand. They were showing several different varieties of head including a two-ply mirror finish head called "looking-glass" which I bought several years ago in the States and their oil filled two-ply "Hydraulic" heads which come in either transparent or opaque-blue. The thin layer of oil in between the two plies acts as a damper and effectively eliminates unwanted overtones. Evans heads are not like any other: they use a polyester loop which is belted with fibreglass in continuous strands which reinforces and becomes an integral part of the hoop. This is then moulded to the plastic film in a one piece chemical construction which they claim gives more flexibility than the metal-hooped varieties. Evans also claim that since their hoops are seamless whatever their size they must be stronger and perform better than the metal hooped heads which have a built in weakness at their joining seam. The Evans company claim that a metal hoop reacts to temperature changes whereas their resin hoop doesn't.

FIBES

Fibes drums are now made by the C.F. Martin guitar organisation in Nazareth, Pennsylvania. They were the original fibreglass drums and first burst onto the market after several

years of research in 1966. They now make crystalite see-through drums too. They don't make any of the really small drums, their smallest being 12 x 8 and their largest 24. Their three snare drum sizes are rather unusual: 5 x 14, 5½ x 14 and 6 x 14, all with ten lugs and filled with a thoughtful attachment which stops the drum from contacting the small tom-tom and protects its finish. The snare mechanism has a very substantial positive parallel action.

Fibes hardware is very solid looking and where possible seems to use plastic ball and socket joints, especially on the tom-tom holder and snare drum stand.

The hi-hat and bass drum pedals both have bike chain type 'pulls' and their centre pull hi-hat stand has several original features: spurs on each of the tripod legs, a tapered non-slip locking principle for the upper tube section and a rotating ring which tilts the bottom cymbal. The twin expansion spring bass drum pedal has its cams set 180 degrees apart which means that one spring tightens on the up stroke and the other tightens on the return which is supposed to give a very smooth continuous beater stroke motion. The heavy duty high rise cymbal stand has an interesting solid tilter with a large (rubber?) domed washer at its top which allows the ride cymbal to stay in position at any level of volume without restricting the freedom of the cymbal and also cuts down its unwanted overtones.

GRETSCH
Gretsch drums were on display on the Baldwin stand and since the American design team were over and I had just done a Gretsch Drum Check (in the March issue of I.M.) I seized the opportunity to put some searching questions.

Unfortunately Gretsch's Brooklyn factory had a very severe fire which necessitated them moving lock stock and barrel to Cincinnati. To produce their own stands and hardware would mean a time and money consuming re-tooling processes so they decided to let the re-established old firm of Wallberg make everything for them. Wallberg is evidently a wealthy eccentric who got back into business just to give some of his old employees their jobs back!

He offered the Fred Gretsch Company ridiculously low prices for tooling up and producing their stands and fittings. Unfortunately, for Gretsch, Wallberg woke up one morning and decided to retire to Florida, leaving them high and dry. Gretsch then approached Camco, whose foot pedal is exactly the same as theirs but for a different logo on its foot plate, who then turned out very poor quality sub-standard parts. Camco no longer make the parts and in fact the company has changed hands for

the better recently while Gretsch are again making their own hardware. Several of their problems are now being sorted out and their troublesome double tom-tom holder is now being completely re-designed. Their double spring bass drum pedal has now been discontinued (without ever having been seen in England) and a new style Japanese looking footplate is now fitted to their single spring model. The hexagonal beater pivot bar is no more and the cam too has been re-designed. All Gretsch floor tom-toms are now fitted with two diamond shaped leg brackets instead of one. This means each leg now has two holders to retain and lock it. When I last reported, Gretsch's Buck Rogers stand was discontinued but they have decided I think quite rightly to reinstate it. The old faithful "monster" stand is also back again. Some of their bass drums are now sporting a feature I never thought I'd see: metal counter-hoops, which is quite a change.

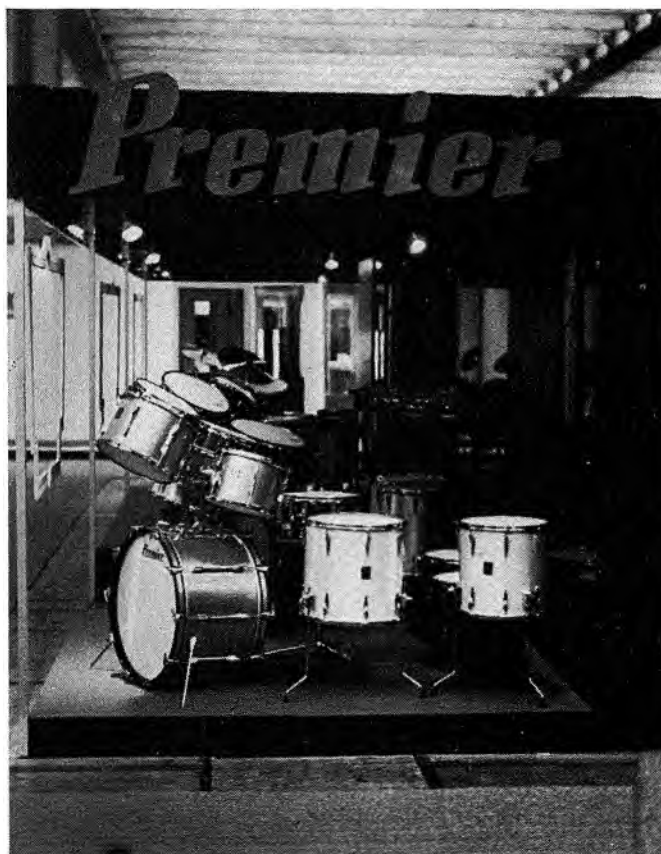
The new sets are topped (or bottomed) off by a brand new stool which must take the prize for being the largest seat ever. Its rectangular 4" thick and 16" x 14". It must be designed for the American bum!

HOLLYWOOD

Hollywood drums are made by Meazzi in Italy and had a completely Acrylic display of very strange bathroom window type plastic drums, frosted on the outside and smooth on the inside. They showed a very large octopus type set which had the larger 14, 15 and 16 inch single headed drums mounted on snare drum stands bolted to the shells inside the drums. The 6 and 8 inch drums were really bongos with very low profile hoops. Meazzi's large ball and socket angle adjustment snare drum stand has been around for ages and as far as I can see has not been drastically changed. The Hollywood pedal operated tom-tom was on show with an Acrylic shell which finally enabled me to see how it was done.

Hollywood's fittings are not at all my cup of tea. Their boom cymbal stands with their strange "C" shaped sprung tilter were very surprising. The stand is joined to the bottom of the C and the cymbal tilter to the top. Is it really necessary to spring the cymbal on its stand?

The Meazzi hi-hat and bass drum pedal are very like Asba's with twin external expansion springs and leather straps. The snare drum has rather strange hoops without holes but old fashioned type claw-clips which fit over the rim and locate the tension screws. I can't understand the philosophy. Hollywood use a unique but to me over complicated tom-tom holder.



The Premier outfit

Meazzi also showed an acrylic drum set called "Wooding" which seem to be almost the same as Hollywood but without their fussy tom-tom holder and instead a ball and socket holder and idea which was originally pioneered by this Italian firm.

LATIN PERCUSSION

The Rolls Royce of percussion manufacturers has their headquarters in Pallasades Park, New Jersey and their stand at the exhibition was literally packed with percussion goodies. A set of seven tuned steel drums dominated, but there seemed to be hundreds of smaller ethnic latin instruments. Three sizes of fibreglass congas, hand turned wooden bongos (their original product and the key to their success), beautiful professional timbales endorsed by Tito Puente, a dozen or so different sized and shaped cowbells, a bell tree, authentic castanets, African talking drums, a double headed wooden tambora for marengue, metal rhythm clackers, which give a castanet like sound, sleigh bells, beautiful fibreglass maracas, two different sizes of slap sticks, two different flexitones and a new open ended instrument from Brazil called a spring guiro with individually tunable strings, horses-hooves, tunable tambourines, a pop gun, wooden agogos, afuches, shekeres (gourd like instruments covered with beads fixed to a net), African tambourines, talking drums, and some highly authentic large log drums tuned in thirds, with smaller log drums called DAKKA DE BELLO.

LUDWIG

Ludwig's stand was showing all sorts of new and exciting things. Their stainless steel shelled set has finally arrived. I didn't have a chance to play it but will hopefully be doing a Drum Check on the drums as soon as Rose-Morris take delivery. I would hazard a guess that their sound is very, very bright. The set on show was their "big-beat" outfit which has 12, 13 and 16 inch tom-toms with a 22" bass drum. The catalogue has a six drum set called "PRO-BEAT" which has the more modern sizes 13, 14, 16 and 18 inch tom-toms with a 24" bass drum.

Gunter Ringers revolutionary floating action timps were on show. I'd seen them before and I understand Carl Palmer has just spent several thousand pounds on a set. Ludwig's original pedal timps were on display with a pair of their cheaper hand operated machine-timps.

As a tribute to American Bicentennial celebrations there was a display of marching drums through the ages starting in 1776 and culminating in a brand new red, white and blue see through vitalite snare drum with an interesting but somewhat superfluous rod and rope tensioning system. Ludwig had all their percussion effects on a pair of trap tables — cowbells, wood-blocks, Afuche, castanets, triangles, sleigh bells, slap sticks, and bird calls.

A very strange sight was a Ghost-pedal attached to a Ludwig bass drum. Ludwig have recently

acquired the Ghost pedal from its original owner who was dental engineer, and are now manufacturing these wonderful twin-cam, coil-spring pedals with their extra large beater ball at what I consider to be the bargain price of 65 dollars.

All of Ludwig's heights and angle adjustment screws have been updated with much larger and heavier duty fittings. There's now a Ludwig sta-set drum key; they must have bought this company from its eccentric "head" owner who made enough to keep him in his "Luxuries" and then made more keys when his supply ran out. It's a multi purpose instruments with a screw-driver, a wing-nut tightener, a hexagonal wrench and an American square-head tension-key. There's also a two way ratchet key for really quick tensioning of snare and tom-tom.

PAISTE

Paiste cymbals made in Switzerland have a very progressive image. They now make four different grades of cymbal. 2002 for heavily amplified rock music, formula 602 (from a bronze alloy) aimed mainly at the jazz and session drummer, and two newer and cheaper varieties; standard (which seems to be a blast from the past) and Dixie. The 2002 is meant mainly for stage work comprise not only crash, medium and ride cymbals but also flat ride (without a cup), sound edge hi-hats, china type and bell and splash accent cymbals for diverse sound colours. Special items in this series are: "Cup Chimes", a set of seven small cymbals with large cups and narrow brims, and "sound plates", a set of four large heavy metal plates together with two chromatic octaves of Grotales mounted horizontally in a vibraphone-like framework. So all in all Paiste's 2002 cymbal selection offers a large range of popular sizes and types.

Paiste gongs are justifiably famous now but they are still constantly searching for new and varied sounds which seems to necessitate exploring new and original shapes. They now market a chromatic octave set of 13 tuned gongs mounted horizontally in a large stand and ranging from C4 to C5.

Proto gong is a series of ten custom made gongs, each with its own sound characteristics, mounted in two rows. Basically some of the gongs look like saucers with square shoulders and a convex centre while others look more normal but with concave centres. One unique gong which was very quick speaking had three convex radials extending from its centre with an inverse flange. These gongs are basically Balinese type and their sounds range from a full earthy bell like tone, through deep, dull-crash, and bell

like crash to a "Gamelan" gong with a penetrating vibrating warm sound.

Paiste's "piece de resistance" is definitely their "dark-ride" cymbal. — It sounds vaguely like a gong struck with a stick with a very heavy bottom end. It's a 22 or 24 inch diameter cymbal with a medium sized cup and lots of "pits" in its surface to colour the sound. Very, very tasteful.

The most recent development on show was the 2002 cup chimes: a set of seven small 5 to 7 inch cymbals with large cups and narrow, thick rims mounted on a special stand. They had a very lively bell-like sound.

PEARL

Pearl drums from Japan had possibly the most comprehensive display in the exhibition showing everything they have in their catalogue. They had a large twelve drum Dyna Family kit in their brand new self striped swirl finish called "Silver Satin Ripple" which was the envy of all the other manufacturers.

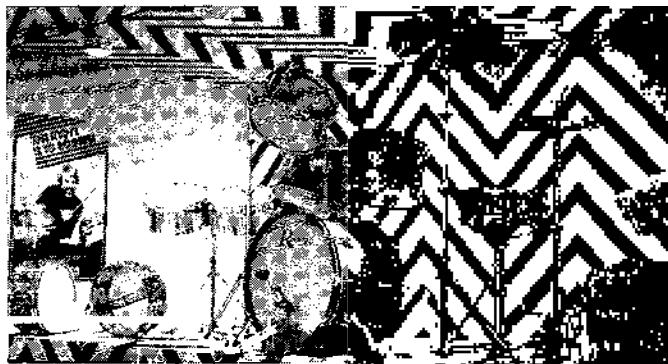
I criticised the Maxwin stands in my road-test but Masani Yanagisawa has come up with some new designs which are excellent and almost as good as the more expensive Pearl stands. Like the old stands, these will sell for two thirds of the price of the Pearl and I think will definitely take something away from their market since they are so good. The bass drum spurs have been elongated and are now really sturdy, while the double tom-tom holder has been improved and made more easily adjustable.

Pearl have several new black satin finish cowbells which look very much like Latin Percussion's and seem to match them for sound. Several different styles of brushes were on show, some with rubber handles and others with wooden handles evidently designed to be used as drum sticks if necessary. All the brushes come in handy nylon expanded cases rather like a relay baton with a screw top.

Pearl have always made fibre-glass congas but this was the first time I'd seen them. They're definitely as good as any other available "glass" drums and come in three different sizes in either black or white.

Latin timbales too were on show. These come in all the authentic sizes — 13 and 14 inch — and are uniquely available in three different materials: steel, brass or president (their bakelite type composition.) There's a new stool just released with a very sturdy base and a square-shouldered, screw thread height adjustment. It has a very large diameter top which I suggest is not meant for the smaller Asian or European behind but more for the normally larger American variety.

Pearl have just started to



Part of the Rogers' display

market a cheaper line of cymbals and gongs which I didn't have a chance to listen to but plan to try out as soon as they arrive here.

There was a set on the Pearl stand which was not on view to the general public. They have been working on American Maple shells for some time and have finally got the shell thickness sorted out and this "quality" maple shell set should be unleashed on the world very soon. It seems to be aimed directly on the drummer who prefers the "wooden" sound of a Gretsch or a Camco kit. Its shells are reasonably thick but experimentation showed them that nine ply shells would not give them the sound which they were looking for. It's the first set they've ever made with a wood-shell snare drum and as far as I know the first production kit to be fitted with Remo "fiber skyn" heads as standard. Look out for this as yet un-named drum set.

PREMIER

Premier's substantial showing quite frankly came as quite a surprise to me. Almost all of their products have been updated and improved. Over the years Premier's quality has never been in doubt although their image and direction has sometimes left a little to be desired.

They had several outfits on show but the one which seemed to excite the most interest was the new "Premier Olympic Professional outfit". Finished in solid black plastic with new style single nut boxes, bass drum claws and T. rods. Spur and tom-tom leg mountings and Premier's double tom-tom holder have all been chromed black. The set had triple flange hoops and square headed tension rods and the whole ensemble was tastefully finished off with Olympic's brand new and very professional looking black and white badge. The kit boasts all the right modern sizes 13 x 9, 14 x 10 and 16 x 16 tom-toms with a 22" bass drum fitted with a felt strip damper. The Olympic snare drum is 14 x 5½ with eight lugs, triple flange hoops, a cast cam action strainer, a reasonably wide snare shell location area, and Everplay Extra heads. For greater stability, all of the stands have been changed to a tripod leg configuration. This set seems to

be expressly designed to compete with the Japanese and I think that with the right exposure at roughly the same price it might just do it.

Premier have introduced something we've all been waiting for (although not with bated breath) for years. A rubber drum mat with blocks to retain the bass drum at the front and extending behind it to a large ring in the centre of which the drummers stool sits. There's also a piece of ribbed rubber which stretches to the hi-hat. It's a great idea because it's a brighter sound reflective surface than carpet and perfect for cabaret or any other gig where the drums have to be set in a playing position very quickly.

Premier's seven drum single headed tom-tom set, the D717, was also on show and since I shall be doing a Drum Check on this set in the near future I took the opportunity of looking it over and giving it a preliminary work out. It's a single 24" bass drum with 13 x 9 and 14 x 10 tom-toms mounted, to the left of these mounted on a stand are 15 x 12 and 16 x 16, below these is a double headed floor standing 18 x 16 drum. The snare drum supplied is Premier's 5½" shell model although I understand the deeper model is available as an optional extra, rumour has it, in spun-brass. The drum has a new beaded shell for extra rigidity, triple flange hoops, ten lugs, internal damper and cast cam action adjustable snare strainer. For some strange reason they now fit square tension screws to the snare drum while the tom-toms still have the old slotted head pattern. Could it be that Premier are changing over completely to square headed tensioners?

Three substantial boom stands are supplied with the D717, also a lockfast snare stand (shortly to be superseded?) a lockfast hi-hat and a stool. I purposely left the bass drum pedal till last — Premier have produced a brand new pedal which as far as I know owes nothing to their old 250 S model which seems to have been unchanged 15 years or so.

This one-piece cast footplate single post pedal called the 252 seems to have every necessary optional adjustment. The foot-

plate angle can be adjusted vertically and laterally, the beater position can be adjusted on a ratchet without disturbing the footplate angle, and the spring tension is instantly adjustable from the playing position. Not bad for a British pedal, is it? It has an accelerator cam action which probably means the cam finally works on a very sharp radius which would serve to "throw" the beater at the bass drum head at the top end of its stroke. Anyway, Premier are letting me have one to try out and do a test on so when I get it I'll take it apart and work out what's going on. Its footplate has two toe stops, one fixed and one adjustable which I must say felt very comfortable. The pedal uses a strap made of extra thick P.V.C. which I should think would take some breaking. Until now Premier footpedals have been an acquired taste although Ian Paice uses the old pattern pedal and no one could say he isn't fast. I don't think this new "monster" pedal would take more than half an hour or so to get used to.

The holdfast double tom-tom holder has been converted into a triple and even a quadruple fitting. Used in conjunction with their new rockshaft support stay which extends inside the bass drum from top to bottom, it gives very rigid and solid support. I'm not convinced of the logic in mounting four drums in two rows on any bass drum. They are tricky and illogical to play; however if this is what you want then Premier's was 394 tom-tom holder is certainly the only one which would help you to do it.

The company also displayed some tubular orchestral bells. The basic 1½ chromatic octave unit frame-mounted vertically has a full length damping system which can be locked in the off position. These bells are available in two sizes, 1¼" diameter for a brighter modern sound or 1½" diameter for the more traditional round sound. Extra chimes can be hung at either end to extend the range from C-F to B-G.

REMO

It was so recently that I toured Remo Belli's factory that I didn't expect to see anything new on his stand. I was wrong. His Roto-toms have been updated in several ways. The frames of the drums have been slightly redesigned and are now cast with a much thinner bearing edge and a more substantial centre boss. This means that the drum which used to have a usable range of from a sixth to an octave now has an increased range. (When I say usable I mean definite pitch because the roto tom can be detuned to sound like a drum but without definite pitch.) Remo's drums have now been accepted and are being used extensively for the Carl Orff/Schnitwerk musical

HENRIT AT FRANKFURT

education programmes, where definite pitched instruments are required.

Remo has designed some new tilters and stands for his drums which seem to be very solid. There's an adaptor bar which can change a single roto tom stand into a double or even a triple fitting, also something called the universal adaptor which works on a bent hexagonal bar and it's claimed to fit any make of stand or holder.

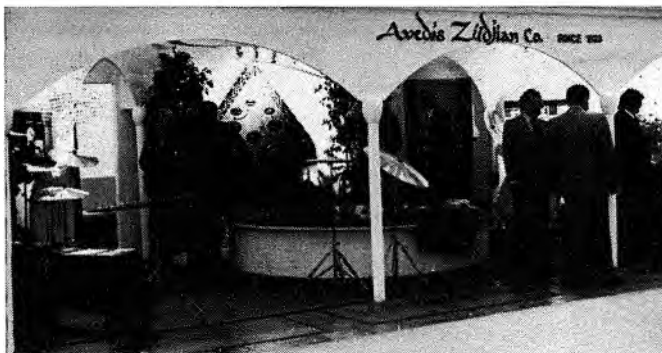
All of the plastic heads were on show: Fiber Skyn, C.S. with black or transparent spots and Ambassador see-through or white spray coated. Remo is now marketing a multi-purpose drum key in Europe which I first saw in New York early last year, so I presume the company must have bought the patterns.

ROGERS

Rogers had a very large display on the C.B.S. stand featuring all of their new style drums with their MEMRILOC fittings and accessories. I have just done a comprehensive road test on this beautiful new equipment which will be published soon so I won't dwell too long on the new product. Basically all of the height and angle adjustments are taken care of by a new fixing system called MEMRILOC. Actually, it's an adaptation of the humble jubilee clip and a hybrid of all the best systems around over the last few years. Spurs, tom-tom holders and hi-hats, bass drum pedals, cymbal stands and stools have an been "MEMRILOC'ed". The drums themselves no longer have internal dampers but instead have external adjustable dampers called "Super X". The nut boxes too have been updated and are now springless with "buzzless" plastic tubing inside.

SLINGERLAND

The Slingerland Drum Company's products were on display much more extensively than I've ever seen them before. As far as I know there's been a major reshuffle within the company and several of the key people have moved on to new pastures. The drums have always been extremely well made and as I have mentioned before are only let down by their service. It's always been very difficult to get hold of spare parts. They weren't showing anything new for '76 although there are half a dozen new imitation leather finishes and a new boom stand attachment which cleverly adapts to any make of cymbal stand and has a very hefty counter weight. Slingerland now make an improved double tom-tom fitting with an immense cast base which certainly ought to hold the drums steady. This new fitting fits into the old bass drum mount which thoughtfully means it's unnecessary to drill new holes and think



The Avedis Zildjian exhibition of something to fill the old ones. The hi-hat pedal has been modernised with a new cast base and an improved footplate.

Like everyone else, Slingerland now make the modern larger tom-tom sizes and also a set of eight-concert drums but they also make something which no other manufacturer makes as a regular item; a 16" bass drum. The "Rocket" snare drum stand has been "breathed on" and its basket type drums and playing angle adjustment "beefed up" a little.

There's a new snare drum designed for and named after Buddy Rich with flanged hoops, ten lugs and three air vents to dissipate the build up of air and help the drum to "speak" more quickly. It has a new strainer called the T.D.R. about which I know nothing but it seems to be a cast version of the normal cam action type but with a plastic snare tie instead of a string. This drum comes in two materials, wood or chrome plated brass; and two depths, 5" or 6" for the wood and 5" or 6½" for the metal.

Slingerland now have cymbals specially hand made for them called KASHIAN which are about a third cheaper than the A. Zildjian or Paiste. They look like a bronze formula and come in all usable varieties, weights and sizes.

SONOR

Sonor drums had by far the largest stand with I should think a dozen or so large drum sets as well as a large glass fronted and mercifully sound proofed rehearsal studio. There was a whole stand dedicated to Sonor's Carl Orff/Schnlwerk system of education. They make very reasonably priced percussion instruments for it such as: Chime bars (resonator bells), Deep Bass bars, Glockenspiels, Xylophones, Metallophones, Xylo-Metallophones, Tambours, plexiglass and wooden Tympani, and all sorts of small percussion instruments.

Sonor make lots of different sets, the largest being the "Sound-Machine" which uses a pair of 22" bass drums and eight single headed Concert tom-toms from 6" to 16" mounted on four separate stands completed by an 18" floor tom-tom and a 6½" metal shell snare drum. There's a new hi-hat stand for this set and an updated bass drum pedal with

a split beater bar and a horizontal suede-bound beater. This set is available in wood or see-through plastic.

There are also four other Sonor-Phonic outfits designated by numbers. XK946 is a six drum outfit with a 24" bass, and 14, 15, 16 and 18 inch tom-toms. XK925 has five drums: 22" bass, 13, 14 and 16 inch tom-toms. XK984 has four drums with 18" bass, 12 and 14 x 14 inch tom-toms plus a 5½ shell snare drum. Other than these outfits, Sonor produce five others which I should think is more than any other manufacturer.

It surprised me to see that Horst Link's Company is marketing a double beater bass pedal for a single drum, and as far as I can gather it's actually made by an Australian firm called SLEISH-MAN.

Their stands, tom-tom holders and pedals are all very good and this year they have a very unusual double boom cymbal stand, the application of which is completely lost on me. All the drums have a brand new numbered badge which looks very like a Japanese nameplate and about which I'm not too sure aesthetically, although I didn't like their original badge at all.

Daniel Humair's set was on display in the studio seemingly for anyone to "have a thrash on". I shouldn't think Daniel was too pleased about this. I sat at these drums and tried to accustom myself to the set-up. It has two bass drums 20" and 22" with triple flange hoops mounted horizontally with foot pedals working underneath and each attached to one of Sonor's pneumatic pitch change attachments. This of course allows him to play with sticks on the top of the heads. In front of his conventional snare drum he has a 10" tom-tom and in front of this and together he has a 12" and a 13" tom-tom. To his left and his right he has a 16" and a 14" floor mounted drum. His unusual set-up was completed by two of Sonor's new flat disc cymbals, which are really just round flat pieces of metal with a centre hole. Daniel has a 20" and a 22" riveted and these are really murder to play since they have a completely flat response with no 'crash' or build-up at all.

VOX

I was very surprised to see a large multi tom-tom Hayman single headed set on Tom Jennings's Vox stand since I thought it was now a defunct drum set. However, as far as Europe and the rest of the world is concerned, they still seem to be selling or at least showing them at musical instrument trade fairs.

YAMAHA

Yamaha only had one small 18" bass drum set on display which is a shame, since I know they make a great variety of good drums but unfortunately, it seems, only in Japan. Nothing really new or startling from them except a substantial looking stool which was a little too hard.

Yamaha had a range of wooden octopus tom-toms on display with very substantial stands and fitted with Ludwig's silver dot heads. There's a brand new name plate too, which is a great improvement on their old plastic one. The hi-hat and bass drum pedals don't seem to have changed. The double tom-tom holder has: it's now a metal ball and socket type, reminiscent of Gretsch's problem. The bass drum now has metal hoops and as before, the tom-toms have thinner heads on their non-batter side.

AVEDIS ZILDJIAN

The Zildjian family had by far the most imaginative looking stand — it was shaped like an Arab tent with a pond, dome, and couches. Avedis Zildjian are surely the best known of all the cymbal makers. They've been making cymbals since 1623. They had their chromatic octave of Coobales mounted on a stand which makes them horizontal and easy to play. They now produce two different types of gongs: the Taiwan, up to 48" diameter made in three pieces and another one piece cast variation simply called Zildjian Gong which has a centre hole and is available up to 28" diameter. I have an 18" Zildjian Gong mounted on a cymbal stand which I play with a stick for a unique and very modern effect.

The amount of different weights, shapes and sizes produced by the company seems to be getting out of hand. They now make so many alternatives that it's going to be very difficult for me to make up my mind which one to choose! They now make splash, crash, Rock-crash, mini-cup crash, Crash ride, Ride, Medium ride, mini-cup ride, ping ride, rock ride, rock 21, sizzle, swish, Pang, Big Bell, Ping, and three different sorts of hi-hat cymbals. Since most of these are available in different sizes and either normal or "Brilliant" finish there really could be a selection problem. Add to this several different 'band' cymbals and you can see how comprehensive and important the Avedis Zildjian set-up is.

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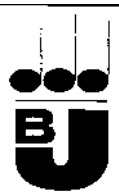


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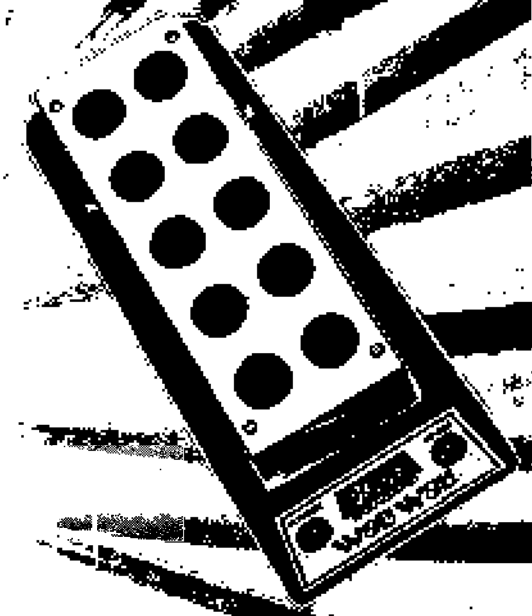
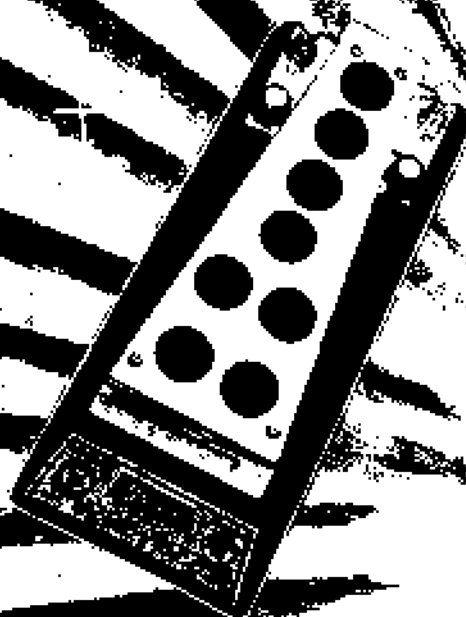
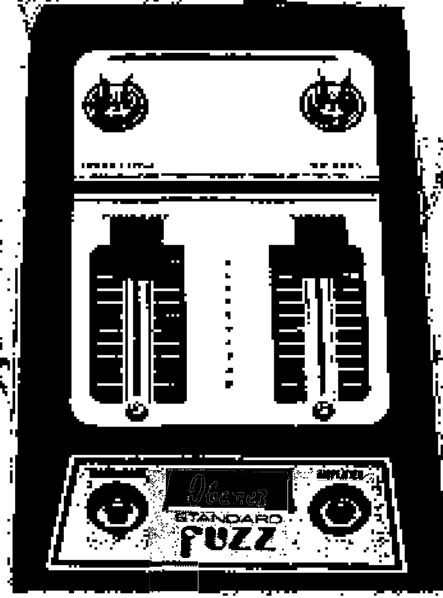
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DAVE LAMBERT

In the flower power days of '67, while Dave Cousins and Tony Hooper were slogging around the folk clubs with The Strawberry Hill Boys, Dave Lambert was busy in Pye Studios recording with his band Fire. They were recording an album called *The Magic Shoemaker* for Pye (with I.M.'s Ray Hammond producing). Lambert was playing lead guitar (an early Ned Callan model) as well as taking lead vocals and writing most of their material. The band were caught up in the heady, hippy atmosphere of that year and, as such, were short-lived.

Meanwhile, back in the folk clubs, The Strawberry Hill Boys were joined by bassist John Ford, drummer "Hud" Hudson and Rick Wakeman, fresh from the Royal Academy of Music. The name had also been shortened to The Strawbs, and Cousins was just getting interested in electric guitar. Hence, The Strawbs moved out of the folk clubs. In 1971, Wakeman was snapped up by Yes, and, after the Chelmsford Folk Festival — the Strawbs' last folk gig — Tony Hooper quit the band to be replaced by Dave Lambert, an old friend of Cousins' from the folk club days.

Soon after Dave joined, The Strawbs scored a single hit with "Part Of The Union", written by Hudson and Ford who left later that year to form their own band. The single, however, firmly established The Strawbs as a name. Various *Top Of The Pops* appearances followed, and The Strawbs inevitably got musically bogged down — everywhere they went, the kids were asking for "Part Of The Union".

Since then, The Strawbs have been out of the limelight as far as Britain is concerned, but have concentrated on the American market, completing three tours in the past year alone. They are at present rehearsing for their new album, and it was after one of these rehearsals that I met Dave Lambert as a hostelry in Chiswick. When The Strawbs had their hit, it was soon after Dave had joined the band, and a lot of people said he was the hit-making ingredient at the time. How did he feel about this?

"Well, some people did blame me" he

grinned, "but I don't think it was anything particularly to do with me joining the band. We were lucky at the time to get the air play for the song, and it was a pretty catchy number."

As well as writing, playing guitar and singing, Dave also plays "a bit of piano and drums". I wondered which he emphasised the most.

"I concentrate on my vocals first. My guitar playing sort of comes automatically. I'm not that much of a technician on guitar. Speed and flash doesn't really impress me. I just play what I think is right for the number."

Dave plays a Gibson Les Paul, although he also has a Fender Stratocaster and an Ovation Breadwinner. "The Breadwinner is a really nice instrument. It's a totally different thing, because it has a pre-amplifier built into it. The Les Paul gives me the sound I want. It's a nice, full round sound."

One of Dave's early heroes was Pete Townshend, a man he still admires. "Townshend is such a good guitarist. I don't think I was influenced by him too much. I just used to listen to him a lot. I've got a lot of his demos at home and they are amazing. When he writes a number for The Who, he puts it down onto a demo, playing all the instruments himself. There's one of 'Won't Get Fooled Again' and it's better than The Who's version as far as I'm concerned."

Does he still listen to Townshend's stuff? "Yeah, I listen to him, but he's gone in a slightly different direction from me. I tend to like the earlier Who stuff."

Dave Cousins is the one remaining original member of The Strawbs and writes the bulk of their material. Did Dave ever feel overshadowed by Cousins? "No, not at all. Dave lets us all have a say in the band. All the arrangements are worked out between the lot of us. If it's one of Dave's songs, he'll bring it along and we'll listen to it and throw in ideas. I sing quite a lot with the band and as I said, I don't want to come on as a guitar star. I think it's important for the guys in a band not to try and blow each other off the stage. We all contribute

fairly equally."

Lambert would be the first to agree that his style is basically rock-orientated. Wasn't it therefore difficult for him to adjust initially to playing in what was originally a very folk-based band?

"Well, I'd done some folk club gigs anyway, before I joined The Strawbs, but I was never too comfortable with an acoustic guitar. When I joined the band, I listened to the material and just added guitar parts where I thought they should be. The band gradually veered away from the folk thing anyway. I think I'm basically a rocker, in a way."

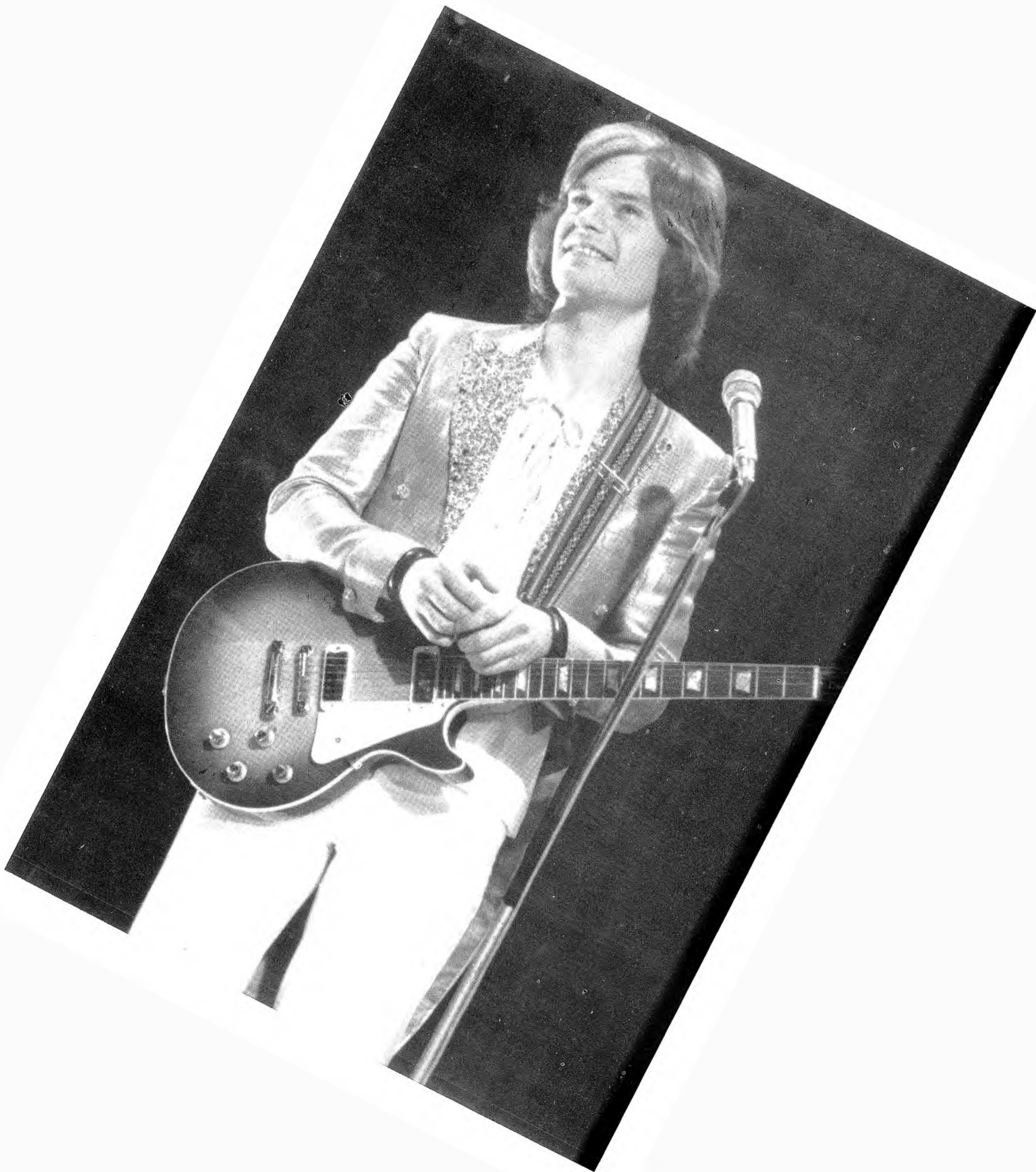
Last year, The Strawbs were quoted as saying they were going to concentrate on America and, with the exception of a stint at the New Victoria Palace, haven't set foot on a British stage since.

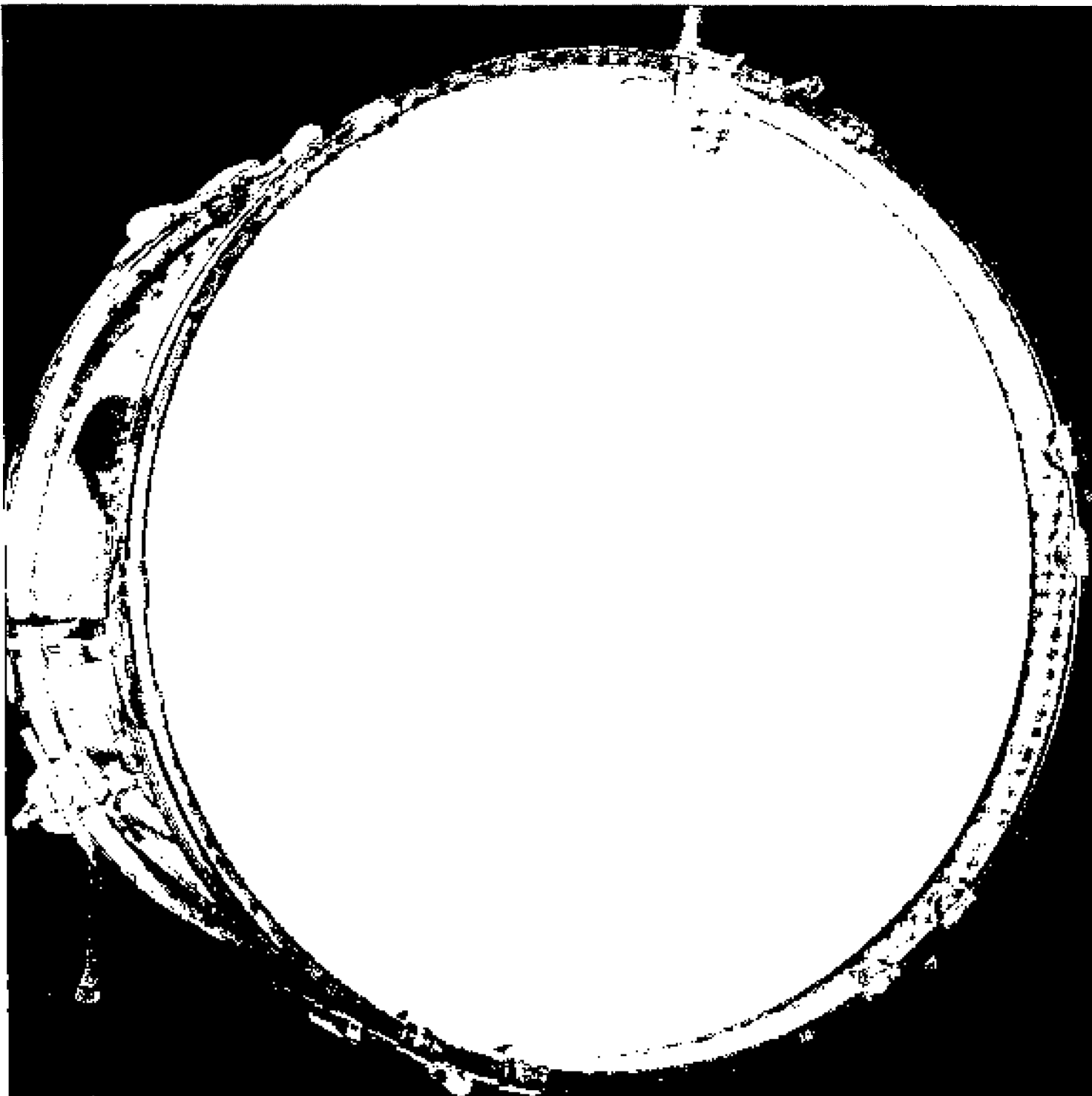
"We really wanted to try and consolidate our position in the States first. We've done three tours during the past 12 months, and that's really why we haven't done England. The Victoria Palace gigs really surprised us — we went along expecting to find the hall half-empty, and they were sold out. It took us by surprise. We've still got a hard core of fans here. I think most of them are our original fans, as opposed to the kids who watch *Top Of The Pops*."

With the success of these gigs, The Strawbs plan to tour England in the near future, although no firm date have been set. They will probably coincide with the release of the new album. The Strawbs are spending three weeks rehearsing the songs for the new album because "I think it's important to have most of the songs and arrangements ready before we go into the studio. It saves a lot of time and trouble, and it's good to really get to know a song before you record it."

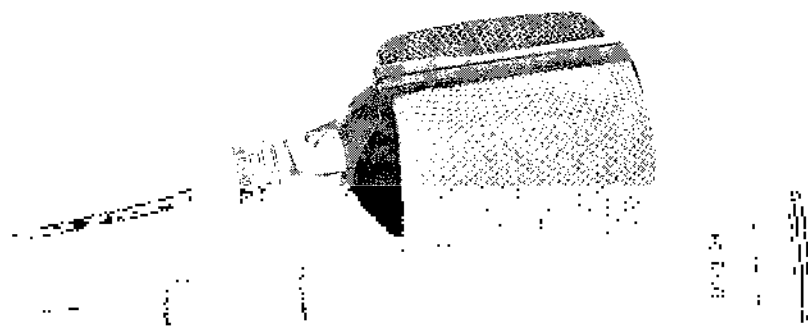
From my conversation with Dave, it was obvious that The Strawbs have been far from dormant in the past year. Working under such pressure, had Dave any time to think of solo outings?

"Well, I want to do a solo album sometime, certainly. I can't really see me doing it while I'm with The Strawbs purely because of the lack of time, but I would want to do one before I'm 30."





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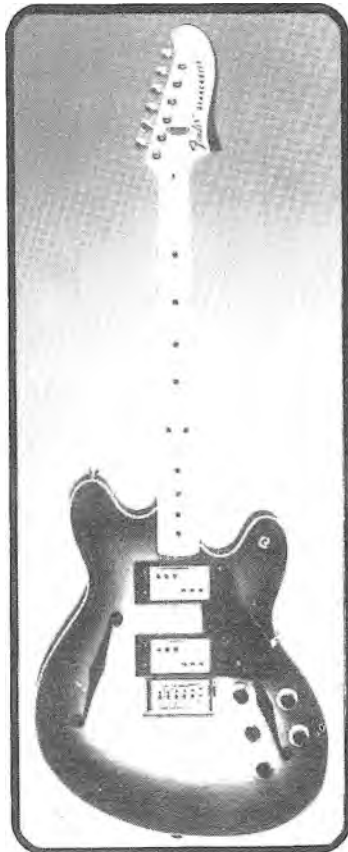
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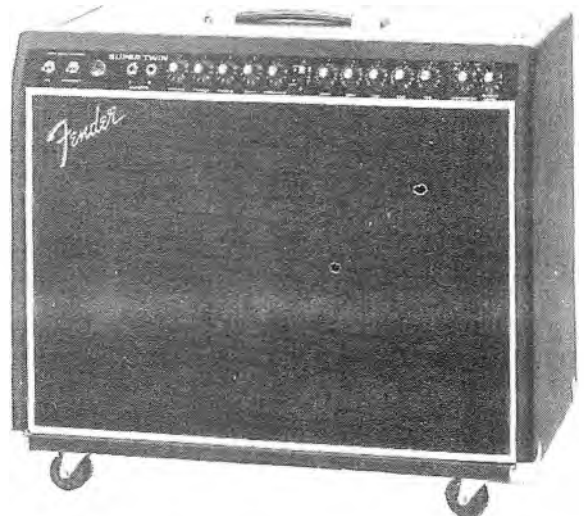
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Roger Chapman and Charlie Whitney are names not totally unfamiliar to British record buyers, as their last group Family achieved quite an impressive record in their native England although it was not quite so successful in the United States. Joined by ex-Jeff Beck Group singer Bobby Tench, Chapman-Whitney formed the group Streetwalkers (on Vertigo Records worldwide), and Jon Tiven recently got the chance to speak to them while on tour in America.

How long have the Streetwalkers been a band, having evolved from a loose recording association to a working unit and all that?

About a year, although we've only seriously been on the road for four months. We got ourselves together musically and then had to get out of a lot of business things; we all had separate managers and ended up with a new manager entirely. New manager, new record company, new agency . . . it all takes time, you have to wait for everybody's contract to run out.

Bobby, you were involved with a group 'Hummingbird' for some time . . . did you ever get on the road or was that strictly a one-shot album?

Tench: It was basically a recording thing. The album was actually finished before I first started working with the Chapman-Whitney Streetwalkers, over a year ago, but it took so long to get the deal sorted out that by the time the album came out everybody was doing something else. Clive's with Brian Auger, Max got back with Jeff — it took too long to get it together.

I've noticed that Terry Wilson-Slessor, an artist whose group Beckett you once produced, has just popped up in Paul Kossoff's band.

Chapman: I've not seen them yet — they were going to work in England and then Paul Kossoff died for a few minutes and they cancelled the whole tour. Terry's a good singer.

I enjoyed the Beckett album quite a bit, but that was an odd production sound you got.

Chapman: Yes, quite bizarre. They were a very good vocal band, they had three really good vocalists but you couldn't get anything out of them in the studio. They'd never done any recording before, and they were intimidated a bit from having a singer produce them, they knew me from Family. George (Chkiantz, engineer) sussed it one day, so I split to the loo for a few minutes and said 'George, stay here and do it' and we got the best vocal on the album. Terry couldn't sing at all when I was around, he's so much better than what's on the album. It was a bizarre fucking session — we had been in the studio two days and the bass player left. My first time producing, and the bass player leaves, so we get this new guy down from Newcastle

CHAPMAN WHITNEY Streetwalkers



and he's panic-stricken, shitting in his trousers when I told him to play things, we were trying to teach him and it was hopeless. After being in the studio for ten days, the record company tells us we have to finish the album next week and it was really hard work — we spent three days and nights in the studio non-stop, stayed right through with half an ounce of a certain substance to go on. It was a shame for 'em, they had some good material and it could have been a really good album . . . if we had a lot more time. They'd been together for five years, they finally get it together to do an album and they split up. It didn't help that the record company folded almost immediately after the record came.

The last Family album, It's Only A Movie was a peculiar album for a group to do as well — it sounded more like a bunch of songs than a group.

Chapman: It wasn't the sort of album you could do live. We had Jim with us (Cregan) on bass, and he's a guitar player, never played bass before in his life. Jim was in the deep end of the wedge because he was alright onstage on the old numbers. We all knew Jim, we thought 'Cregan would be great if he's into playing bass.' On all the numbers we did on tour, he had somebody to copy but when it came to writing new material he got a bit lost.

What was the Beck gig like?

Tench: It had its moments. I wouldn't do it again, no way. It did me some good, but it did me some bad as well.

Were you frustrated as a guitar player in that group?

Tench: Yeah, I always thought I could fill in a bit somewhere and help out the sound a bit. I never pushed it, but I was never asked to do it either.

How did the band fall apart?

Tench: We were recording, doing some stuff with Stevie (Wonder). We were

doing *Superstition*, and Beck said 'Well I can sing the B-side', so I told him to sing the whole fucking lot. 'It's your band.' It ended up as so much rubbish that Stevie turned around and did it. I knew it was a hit the second I heard it . . . Stevie did as well. That was that. He's an instrumentalist and a good one, I always thought he should be playing the things he's playing now.

Didn't you rejoin Beck with Carmine and Timmy at one point?

Tench: Yes, that was a good joke. Beck rang me from Chicago and said, 'I don't know how to ask you this but . . . could you finish out the tour?', I said what's the deal, you had a really steamin' singer, right? 'Yeah but he keeps dressing up in all this glitter gear — he looks like a right cunt.' They just couldn't take it. Me and Max did the rest of the tour with him and that was great, that gig in L.A. we did sounded right. I'm on good terms with all of them now, I think, there were never real hassles.

Why did you Streetwalkers decide to produce your first album yourselves?

Tench: We couldn't find a producer who'd put up with us.

Chapman: We just started it and went on doing it without the benefit of a producer. We may get a producer for the next one; we're open to suggestions. It takes a lot off your back, the producer takes a lot of responsibility from the band.

Do you feel that the purpose of playing live is more orientated towards getting across the music of the last album or towards preparing the band for the upcoming LP?

Chapman: It depends on where we're playing. In America, we're here mainly to promote the record and to get acquainted with our American record company so they can check out whether the market is there for us. And we can check out whether we're ready for the market. In England, we seem to have audiences that are ready for us, there is the market already there.

I see. It's funny, American audiences have always been fairly conservative in the vocalists they choose, they'll take Paul McCartney over John Lennon almost every time.

Chapman: There's definitely a lot of room in this band, vocally — it's the first time in a long while I've worked with another vocalist. In the early days of Family there were three of us out there, Jim King, Ric Grech and myself. Eventually the two of them fell back and I moved further toward the front. We're very distinctive, I think, but we blend together very well when we want to. But it's not the usual type of blend, we don't sound anything like one another when we each sing separately. Whereas on some of the Beatles' things it's fairly difficult to pick out who's actually singing. □

DEALER NEWS

WESTERN ORGANS

Western Organ Studios have been in Bristol since 1972, and in that time have attracted more than their fair share of name customers such as 10cc, The Swinging Blue Jeans and The Temptations. The guitar department includes Fenders, Gibsons, Hoyers, Arbiters, and copies by CSL and CMI; keyboards include Fender-Rhodes, Keynote, Hammond and Viscount; amplification by Carlsbro, Marshall, Sound City, HH and their own Washburn range, and drums number among them Camco, Slingerland, Gretsch, Ludwig and Premier.



Western Organ's visitors include 10cc

PALL MALL ROCK

April 1973 saw the opening of Pall Mall Music in Chorley, Lancashire. "It was originally just one room, about 14 square feet," recalls shop manager David Shinn, "and we've since extended it to twice the size." Pall Mall sell amplification, guitars and electronic keyboards with names like Yamaha, Roland, Peavey, Carlsbro, Farfisa, Vox and Elgam on display. Guitars number among them Fender, Gibson and better quality copies by CMI, Antoria and Ibanez.

Because of the shortage of space, only percussion accessories are stocked at the moment. As well as David Shinn, the staff includes electronics engineer Steve Kitchin and Dave Garstang, who looks after the showroom and does guitar repairs. He also finds time to play for a local band, Legend, who are doing well in the North of England.

Pall Mall's extras include

The shop is spread over two floors — the basement housing most of the amplification and the ground floor drums and guitars. Western Organ Studios is under the direction of Ted Kneller, his wife Inge and Mike Gregory. Sales Manager is Dave Roberts, who also does guitar repairs, designs their own cabinets and plays with a band called Livingstone, who are soon to appear on A.T.V.'s "New Faces" programme.

As well as the aforementioned acts, recent weeks have seen The New Vaudeville Band, The Hill-siders and The Rocking Berries.

custom cabinet building. "We make up various speaker cabinets to customer's requirements but only really on a small scale," explained David Shinn. "They're not mass-produced so they are pretty good quality. We also repair everything — not just our own gear." They carry "a fair amount of second-hand gear. We get what we can in, but it seems to go straight out again."

Among local bands who are customers of Pall Mall Music are Paranoic Haze, Legend and White Satin. "Most of the bands used to do mainly cabaret acts for the clubs," David observes, "but there are a few more rock bands around now. They're tending to buy much bigger equipment. They can come in and try out anything they like with no hassles here. We pride ourselves on a personal service — no one is standing around waiting to see the colour of their money."

COVENTRY DOUBLES UP

Five years ago, the Kenilworth Music Centre opened catering for the many musicians in and around the area. Manager Ian Cruickshank and his wife Barbara enjoyed considerable success with the venture — so much so in fact that three years later they moved to the city of Coventry, five miles north of Kenilworth. Re-named the Coventry Music Centre, it is now both a Fender Soundhouse and a Gibson Star Dealer. Their main franchise is HH amplification, but they also carry a wide range of other makes including Marshall, Wem and Carlsbro. "We hold a bit of most of the main amplification lines," explained Mrs. Cruickshank, "and we've recently gone into the disco market. There is a healthy disco scene around here." In the disco range, FAL equipment figures prominently, although they have

just taken delivery of a range of Icelectrics gear.

The Coventry Music Centre is actually two shops side by side. While one is mainly keyboards, acoustic guitars and educational instruments, the other is a group centre. Guitars like Fender, Gibson and Guild are permanently on display along with the aforementioned ranges of amplification. Second-hand equipment plays a large part in the day to day business, and two engineers are "on call" for servicing and repairing guitars, amplification and keyboards. In the home organ range, Yamaha take the lead and other keyboards stocked include Mini-Korgs and Crumar. "Synthesizers and string machines are rapidly becoming very popular," explained Mrs. Cruickshank. "They really seem to be taking over from electric pianos now."

The music scene around Coventry would seem to be largely "semi-pro". "Most of the local bands are mainly into cabaret and clubs — there are very few pro bands around." Regular visitors to Coventry Music Centre include country and western singer Patsy Powell, Las Vegas and True Expression.

Five months ago, the Music Centre took over what used to be a ballroom just above the shop. They now use it for various promotions and demonstrations. "It's very difficult for a band to try out a large P.A. systems in a shop," explained Mrs. Cruickshank, "so they can now test the largest systems up in the ballroom. They can wind it up to their normal volume which is virtually impossible in a shop, no matter what the size." Other "extras" offered by Coventry Music Centre include tuition for organ electric and acoustic guitar.

Ware Music

"Very humble" is how shop manager Tony Hookaway describes Ware Music's beginnings.

"We literally started from scratch," he explained. "Our Managing Director Ralph Long decided that Ware was the central town in this area, because there are no music shops within a 25 mile radius and it now looks like he was right. We draw customers from other towns like Stevenage, Hertford, Bishops Stortford, Harlow, Enfield and Waltham Cross." They specialise in keyboard instruments and are main agents for Yamaha, with 12 models in stock at any one time. Other makes include Riha and Kentucky, while pianos range in price from £500 to £1,000 and include anything from a good reconditioned upright to a Steinway.

"We always have about 90 guitars in stock," he added.

"These include a wide range of electrics, acoustics and classic." The names include Antoria, Kasuga, Ibanez and Kimbara — Fenders, Gibsons and the like are available to order. Ware like to keep "a finger in every pie", and they have a small range of brass and woodwind instruments in stock, as well as mandolins, bouzouki and other less common instruments. "I like to think that where we score is in service," said Tony. "We have an excellent

violin maker and a flute maker who assist in repairs. We can also do most repairs to fretted instruments with the exception of re-sprays."

A particularly helpful aspect of Ware Music's service is their weekly van service to London each Thursday. Name artists who have recently visited Ware Music include Chas and Dave, Adrian Gurvitz and the Tony Lucas Big Band.

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ALBUMS

Freddie Hubbard: Red Clay. CTI 6001

For those yet to learn, Freddie Hubbard is a superb trumpet player. He's been working with some very exalted names in the U.S. and on this album he teams with drummer Lenny White (Return To Forever), sax player Joe Henderson, Herbie Hancock and bass player Ron Carter. So you have a small group of five superb players playing freely and with spirit material by Freddie Hubbard and reaching the finer points of individual and group expression. Because a review has to communicate, I need to categorise and say that the "type" of music played lies somewhere between the spaced rock of Return To Forever and the traditional forms of new jazz begun by players like Charlie Parker. Every musician will be able to learn from this album. Each player exhibits real mastery over his instrument but controls that add to the total rather than pursuing the selfish personal expression which makes many albums of this sort a long collection of solos without a whole. The minority of listeners in the U.S. who are sufficiently receptive to get something from this music is large enough to provide a healthy market for the players but other territories will reveal addicts to be thin on the ground.

Recorded at Van Gelder Studios, engineered by Rudy Van Gelder. Produced by Creed Taylor.
Ray Hammond

Laura Nyro: Smile. CBS 81171

Laura Nyro's been developing steadily without undue haste and her continued U.S. success has stimulated the growth of her writing powers and this album is one from a mature and communicative observer. In the U.K. she's not widely known for uncertain reasons and apart from a patch of attention five years ago, her releases have gone unnoted except by those who take the trouble to discover quality whether it's popular or not. Here Laura has refined her image making process to the ultimate. She writes of what she sees and what she feels in single images, like isolated camera shots that linger long enough for the eye to register and then moves on. Putting this almost visual concept together with interesting if not compulsive melodies produces an effect far larger than film and at the finest points the emotion produced by the melodic structure tunes in with the visual images so perfectly that pure communication from Laura's consciousness to the listener occurs. On certain occasions the process isn't so precise and something foreign, or irritating will pull the listener away from the message. It's an album of small doses, a collection of songs that will usually be listened to individually and the whole album will only be played through in really flat, receptive moods.

Recorded at Columbia Studios, New York, engineered by Tim Geelan and Don Pulse.
Ray Hammond

Cate Brothers: Asylum Records. (K53019).

The Cate Brothers are 33 year old twins. Playing for years in local bands, just struggling on playing dance hall material in Arkansas and holding down day jobs like thousands of other musicians all over the western world. But suddenly the spotlight was swung across the masses and is resting on them. They're not kids, but the press reports says they're still surprised and bemused and happy to go on stage to play their material. It's nothing special for them, but the American record business is suddenly finding it very special. It's the "we haven't changed, everybody else has" syndrome. Asylum records heard and signed the band after Lookout Management (great name for a company) drew their attention to the band and the circus began. Reviewing this record in London, it's possible to listen to the music without having suffered the subtle pressures of the giant hype. Does music become good before or after you've been told it's good? That's the question that's been confusing a lot of record buyers in recent years and before the flood of publicity reaches all our circulation corners, I'll say that the music isn't amazing. It's good, interesting and very professional, but not staggering. When you've been got at and sold the twin good looks, the long struggle story, the slick presentation the music may begin to take on new depth and having a strong image of the boys lends a real quality to the album that may well be sufficient to get it away.

Recorded at Clover Studio, engineered, by Barry Rudolph. Produced by Steve Cropper.
Ray Hammond

Linda Ronstadt: Prisoner In Disguise. Asylum K53015

One of the best albums of last year was undoubtedly Linda's "Heart Like A Wheel". Sadly, it didn't really "make it" in this country. Hopefully, "Prisoner In Disguise" should do better - it certainly deserves to. Like "Wheel", Ronstadt, Peter Asher and Andrew Gold team up to produce an album with real class. Gold is featured on a multitude of instruments including acoustic and electric guitars, drums, piano, string ensemble and congas throughout the album, and various guest artists turn up from time to time like Nigel Ollsen, Emmylou Harris and Maria Muldaur. Other ace musicians on the sessions include Dan Dugmore (pedal steel), Russel Kunkel (drums) and Kenny Edwards (bass). The material, too, is faultless. Neil Young's "Love Is Like A Rose", James Taylor's "Hey Mister, That's Me Up On The Jukebox", Jimmy Cliff's "Many Rivers To Cross" and Smokey Robinson's "Tracks Of My Tears" all receive excellent interpretation.

Produced by Peter Asher, Recorded at The Sound Factory, L.A.
Eamonn Percival



Nazareth: Close Enough For Rock 'N' Roll. Mountain TOPS 109.

Close Enough For Rock 'N' Roll is a problem, both for the reviewer and also for Nazareth. The entire first side of the album has run afoul of an old and confusing misconception: that everything artists do is art. That delusion is vain, self-indulgent, and it can make you blind. This first side of Close Enough is about the musician's grinding life on the road — the long nights, occasional women, and unending tedium of touring. Because it is the conscious lament of an artist does not necessarily mean that it is art; to claim that it is categorically is to suggest that the songs of a black prisoner on a Mississippi prison farm categorically are not. Art is at least the creation of order out of chaos and ideally an insight into the universal, from the particular. It is not enough for Nazareth as artists to write about their anguish on the road as artists and then to claim it as art. The first side of this album is no more art than an old diary is a work of history or a newsreel is cinema, and the band's complaints about this lightest of industries elicit no more sympathy than the not dissimilar complaints of, say, an assembly line worker in a car factory — regardless of fine music and musicianship. I don't mean to be particularly harsh with Nazareth, it's just that there are strong indications of real worth on the second side of the album, and don't want to dismiss them as a "good boogie" band. "Carry Out Feelings," the third track on side two, is more like art: a novel twist on a familiar theme, pre-packaged consumer romance — the McDonaldisation of love, — with a clever mixture of irony and wistfulness. This is the great and the good in Nazareth. There is not enough of it in Close Enough For Rock 'N' Roll to save the album, but what a bright promise for the future.

Recorded and mixed at Le Studio Montreal. Produced by Manny Charlton, engineered by John Punter and Nick Blagona. Carroll Moore

Robin Trower: Live. Chrysalis CHR 1089

When James Marshall Hendrix died, he left a hell of a gap in the music scene and this album confirms my belief that Robin Trower is doing his level best to fill it. He's going well towards filling it in terms of album sales and live gigs, but, in terms of technique and imagination, he leaves a lot to be desired. A Strat and a couple of Marshall stacks doth not a genius make. Try as he might, Trower just can't get near the controlled vibrato, the thoughtful chordwork and the majesty that came across on most of Hendrix's work. Drummer Bill Lordan is an archetypal "heavy" drummer — he lays it down, but doesn't leave much room for light and shade. On the plus side, however, bassist and vocalist James Dewar is a tower of strength within the band. His bass playing is solid without being flash, but he really scores on his vocals — throaty, aggressive and full of feeling. I can't help thinking his talent is somewhat wasted with Trower. The material — most of it written or part-written by Trower — is harmless enough. A lack of imagination together with a lack of adventure dulls the material to the point of vacuity. The Hendrix influence is all too obvious on a number called "Daydream" — listen to Jimi's "Little Wing" and you'll see what I mean. There's also an overlong rendition of "Rock Me Baby" — a song that seems to have become the obligatory Blues Standard On A Live Album. Trower plays without any effects pedals all the way through the number until the end, when he pulls the old crowd-pleaser trick of leaping up and down indiscriminately on a wah-wah pedal for the last phrase. It's all a bit too easy, isn't it?

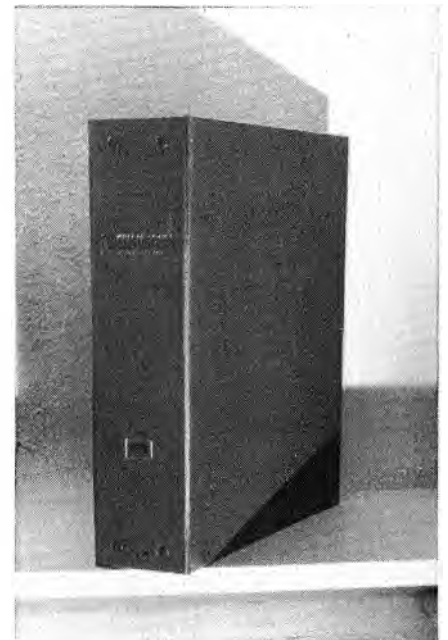
Recorded live at Stockholm Concert Hall. Remixed by Geoff Emerick and Robin Trower at Air London Studios.

Eamonn Percival



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Kent isn't quite the place it used to be. Once the Garden of England, it's now the back yard of London and the effluent of industry smears the countryside.

It's still possible to find peace, waving corn and aging oast houses, but there are yellow plastic garage signs and power pylons as well. Musicians in Kent get the best (or worst) of both worlds.

Bands playing "real" music have a hard time, like they do everywhere else. If they write their own material and don't really like playing "Viva Espana", work is hard to come by. The "heavy" college gigs are getting less and less and it's all down to recording in the first instance. Kent's music freaks are heavily influenced by London. There's hardly an identifiable Kent consciousness but here we look at some of the music orientated activities taking place amongst the hops — and diesel fumes.

Matthews Music have a lot to offer musicians in the South East. The shop itself is the retail side of Eric Snowball Electronics, which also covers ZB guitars (U.K.), ESE Binson Sales and ESE Hire. Endearingly known to many as Ron The Con, Rob Maskell is the General Manager. "Our custom is varied between the young lad who wants to play the guitar, the young lad who has just formed a group and the semi-pro and pro artists," he said. "Our range therefore has to cope with that field, which in turn is reflected by the stock." The stock includes probably the best of everything, Fender, Gibson, HH, Carlsbro, Hiwatt, Peavey — the list could be endless. "All the major distributors are pretty well represented," added Rob.

Rob and the rest of the staff are always willing to take time and trouble with customers. "When a customer comes in for something, he can pick out what he wants, pay for it and take it away. If he finds it's the wrong thing for him, he can always come back and change it. This is the only fair way of doing things, because there's no real way you can try something to your complete satisfaction in a shop."

"You've got to be fairly flexible in this respect. I also like to think the big guy is no more important than the little guy. We take as much care with a pro customer as we do with a youngster who's buying a £20 guitar. Sometimes, the young kid is more important, because he's your future business."

BUZZ: KENT



Winkle Bill — New Faces' prospects?



Wing Music of Bromley

In December, Matthews Music opened their second retail outlet in Rochester High Street. "We looked around and decided that the Medway towns hadn't had a lot of coverage, so we opened another Matthews Music there and it's already proved its worth."

White Heat have been together for over two years, playing a mixture of recent chart successes and standard rock and roll numbers. At the moment, they are working every weekend in and around the Maidstone area, doing workingmen's clubs, weddings and parties. White Heat are: David Bolton, lead vocals (H/H MA100S P.A. amp through two H/H 2 x 12" columns); David Pearson, lead guitar (Jedson Les Paul and H/H 100 watt combo); Terry Golding, bass guitar (Top Twenty Bass, H/H 100 watt top and Orange 4 x 12" cab); Peter Skinner, rhythm guitar (Shaftesbury Les Paul and H/H 100 watt combo) and John Tonitliff, drums (Pearl kit). Apart from regular local gigs, White Heat have often gigged in London, travelling down in a Ford Transit.

For the type of work they do, it is necessary for them to include pop numbers and old standards in their repertoire, but they have also recently started writing their own material. Hopes are high at the moment because, since they recently came second in a holiday camp competition, they have a chance to appear on A.T.V.'s "New Faces"

Incredibly, Barnard's are now in their 75th year of business. Edward Barnard originally opened the shop dealing in records, sewing machines and prams — an odd selection of stock, but more and more musical instruments were introduced into the shop as the years went by, mainly because Edward Barnard was previously a professional organist. His son, John Barnard, later came into the business and opened Barnard's Music Studio two years ago. The record shop still exists — just down the road

John plays woodwind instruments and his assistant Paul Seal is also a guitarist, but as yet hasn't had an audition for New Faces. Guitars in stock include Fender, Gibson, Rickenbacker, Ovation as Barnard's tend to specialise in second-hand American guitars. "We found initially that the new models weren't moving, and there was a demand for the older ones, so we look round and see what's about on the second-hand market. If we see something worthwhile, then we go out with cash in hand to get it," John explains. "Being a provincial shop, we mainly cater for the lower end of the market in both electrics and acoustics." Barnard's amplification includes Fender, Yamaha and Peavey — "We're trying to build up our stock of Peavey, because it's good gear and it's selling well."

The percussion department mainly houses Premier — Barnard's are a Premier agent —



L-R: Bob Driver, Doug Macdonald and

John feels that "the main problem with trying to have a fair stock of drums is room. Next door to the record shop, we are waiting for the present tenants' lease to expire, so we can eventually expand and have the whole thing under one roof."

Since July of 1975, the Fletcher Coppock & Newman headquarters has been located in Tonbridge. They handle the importing and arrange the distribution of the vast array of musical instruments and merchandise long identified with Fletcher, Coppock and Newman. These include Kent drums, Kimbara and Columbus guitars, and a broad range of goods.

The electric piano and organ business is run from the company's premises in Shelton Street, in London's Covent Garden, but the convenience of Kent as a transportation centre, with easy access to Southampton, London and the South East, triggered the move to Tonbridge. The warehouse facilities of the Kent connexion are impressive: 17,000 square feet of space, with a staff of more than 40 to organise and execute the distribution of the F.C. & N gear to retailers.

While transport is left to independent transport companies, deliveries in the immediate Kent area are expedited by the F.C. & N van.

Shure Electronics Limited are based in Eccleston Road, Maidstone, and market the world-renowned range of Shure products. This vast range includes pick-up cartridges, microphones, mike stands and accessories, mixers, P.A. systems and a whole lot more.



Terry Neilson of Music Matters

The Vocal Master Sound Reinforcement system is among the more popular P.A. systems marketed by Shure, and is used by many groups and clubs throughout the country. The popularity of the Shure range of microphones speaks for itself — long accepted for exceptional quality and durability, Shure microphones are used by bands and artists all over the world. The Shure operation in Maidstone comprises about forty staff — marketing, publicity, sales, service and accounting, the bones of their U.K. operation.

It's sometimes a struggle for semi-pro bands to get off the ground, but Winkle Bill seem to be taking off in a big way around the Medway towns. A five-piece, Winkle Bill are: Paul Shrubbsall, vocals (Carlsbro 600 watt P.A.), Barry Archer, lead guitar (Les Paul and Fender Stratocaster, through a Selmer 30 or a Marshall 100 and Hiwatt 4 x 12); Paul Adam, bass (Fender Precision, through a Selmer Treble and Bass 50 with an ESE 1 x 18); Harry Hancock, drums (Ludwig Super Classic) and Tony Powell, keyboard (Thomas organ, Roland synthesizer through a Hiwatt 100 and 4 x 12).

The Medway pubs and clubs are Winkle Bill's domain and they rule O.K., performing a mixture of rock, pop, soul and reggae, interspersed with their own original numbers penned by Paul Shrubbsall. The band are semi-pro, but usually find themselves working about three nights a week. They have already recorded material for Radio Medway, and are soon to go into a studio to cut some demos of their own songs with the aim of eventually releasing a single.



Roland Friday of Sharon Music

Sharon Music is a chain of organ showrooms dotted across the Kent countryside. A Hammond agency is the main strength of the company and Managing Director Roland Friday is convinced that's the key to success.

Mr. Friday came to the organ through the church. He and his father are big in the church of the Assembly of God and it was through the church organ connection that Roland started selling Hammond organs from a corner of his father's car showroom in 1963.

Bromley — Downham, to be exact — was the area chosen for the first independent organ showroom Roland opened. That was in 1965 when the funeral parlour in Bromley Road shifted its stock to another address.

Sales boomed and in 1970 the cautious Roland opened another shop in Maidstone and then a third, in Canterbury, in 1973. The setback organ dealers suffered during the middle of last year — 25% VAT on organs — gave him food for thought and today Sharon is diversifying. Under manager Terry Bates the Maidstone shop went into instrument selling (guitars, amps and drums etc.) three or four years ago and it's been a great success.

"The ups and downs of the organ business can be very great," admits Roland, "and we're keen to soften the swing. We'd like the instrument thing to pay the rent and for the organ sales to be the jam on the bread."

Bromley now has Eric Blancke, formerly of Wimbledon's Western Music, who's going to lead the oldest shop of the chain in this new area of marketing.

"We're cutting out one complete organ line to make room for other types of instrument," said Roland. "We're hoping to do very well with guitars, drums and so on."

Ratlink & Corngrabber is a name invented to grab attention. It's applied to a shop and a P.A. hire company which operates from 2, High Street, Bexley. Behind the honky title are Alan Cornish and Tony Wrafter, both men with lengthy group experience who have bought themselves a 1.5 kW P.A. rig and carry it around the country amplifying the sounds produced by successful musicians.

The shop isn't doing too well. The operation started out in the

middle of last year and Alan admits the company was a little over ambitious in the beginning when it opened both a shop and a hire company.

"We spent most of our money on the P.A. system and we didn't have any money left to stock the shop properly."

The shop is dying a natural death and the lads are concentrating on getting the P.A. working as often as possible.

The P.A. is made up of Martin, JBL, Gauss drivers, Hill amps and a Hill 16 channel desk. It is dragged around the countryside in a sturdy two ton truck and benefitting from the efforts of R & G hire recently have been The Pink Faries, Starry Eyed and Laughing Steve Marriott and the Chosen Few.

"The Marriott gig gave us some real problems," said Alan. "He was using 1,000 watts for his back line alone and trying to get 1500 watts as a P.A. system working properly was very hard. He was very pleased, but we would have liked another 1,000 watts."

R & G have the kind of youthful exuberance that means they'll try hard. They're ploughing every penny they can back into the business, keeping the equipment in top condition and expanding the rig whenever possible.

Cathedral are a four piece band based in Bexley. Alan Cornish, who's also a partner in the Ratlink and Corngrabber hire company, plays in the band although he says there's no overlapping of interests and the band is entirely independent of his hire company interests.

The band was a five piece but recent internal trouble reduced the line up and the band are currently advertising for a fifth member, a guitarist/singer.

Cathedral's line up is: Alan Cornish, bass; Dave Davis, keyboard; Andy Dyngay, guitar and Steve James, drums. Instruments used by the band include a Rickenbacker bass, C3 organ, Gibson 335 and Ludwig drums. Amplification includes Hi-Watt, HH, Leslie and Yamaha.

In two short years, Malcolm Hill Associates have grown and grown. They manufacture and supply, both, to the trade and direct to customers, complete P.A. and lighting systems. "Anything from a 100 watt amplifier to a 16 track studio console" is how Malcolm Hill describes the company's goods. They started business in Tunbridge Wells and moved to Marden in December 1975 after outgrowing the old premises. "We have a factory where the equipment is built" added Malcolm "and a country house where we can demonstrate and store the equipment."

The manufacturing side of the business is managed by Rob Lingfield, while Malcolm and Dave Cottam look after the sales

Such is the success enjoyed by Malcolm Hill Associates that they are thinking about moving yet again. "We're hoping to move to a larger country house a bit nearer London in about July," he added. "We'll be able to incorporate a club, rehearsal room and a studio as well."

At the moment, 80% of the company's output goes abroad, as they have 40 agents in 23 countries, and 60 in the U.K. Many hire companies are using Hill equipment, including ten in the U.K., four in Europe and one in the United States. In recent months, the company has built equipment for the Kursaal Flyers, Druid, Cajun Moon and The Enid. At the moment, they are building gear for bands like Frogmorton, Lone Star and they are discussing systems with Osibisa and Vangelis.

Malcolm Hill Associates are also about to release a new range of instrument amplifiers which will be available in 100 watt, 200 watt and 400 watt versions, all of which will incorporate a ten-band graphic equaliser.

Drumland Percussion is situated in Lowfield Street, Dartford, and is under the direction of Graham Willard. After teaching drums for a while, Graham opened the shop in 1973. "A lot of the specialist shops in town were closing down at the time," recalls Graham, "and I was hoarding lots of drums at home, so it was the logical thing to do." Graham handles the sales, while John Moule looks after the workshop. All kinds of repairs and refinishing is done in the workshop. "John's time is mostly taken up with reconditioning. Every second-hand kit is always stripped down, checked over and cleaned. It's got to come out of the workshop looking saleable, and it makes sure whoever buys a second-hand kit doesn't come back the next week with something broken on it."

Drumland Percussion also offer repairs to stands and pedals at fairly short notice. "If a guy comes down to buy something and he needs a stand or pedal repaired, then we can usually do it while he waits. I think it's pretty important to be able to offer facilities like this. The service side of things has been sadly neglected in a lot of places."

With that kind of service, it is not surprising to find that Drumland Percussion attracts customers from all over the British Isles. "We get a lot of people coming in from the Medway towns, Essex, and the coast," Graham explained. "I recently sold a kit to a guy from Cheshire, in fact. He went down to Shaltesbury Avenue and came away totally disappointed, but we managed to fix him up. We've actually sold kits as far away as the Isle of Wight and the Shetland Isles."

BUZZ:KENT from page 91



A selection of Bose gear

Doug Macdonald is the brains behind Music Matters, a recently-opened musical instrument shop in Bellegrave Road, Welling. Formerly a design engineer for Vox, Doug explained "After Vox, I spent some time in repairs and special projects, and also did some P.C. layouts. I was asked to build some effects units eventually and started in a small garden shed."

This interest in effects units has led to the very successful range of Dharma Sound units, now distributed in Germany, France, Switzerland, Sweden and Denmark. "The shop is basically a retail front for the factory," he added, "but we carry a fair amount of stock — mainly

aimed at the semi-pro and pro workingmen's club groups. The amplification is mostly the smaller 100 watt-type jobs. We don't really carry any really heavy gear."

Among the gear they *do* carry, names like Carlsbro, Arbiter, Marshall, Novanex and Custom Sound are much in evidence on the amplification side. "We don't carry an awful lot of Fenders and Gibsons," he said, "but tend to sell a lot of the good copies like CSL and Antonia." Microphones in stock include Shure, Eagle, AKG and Beyer and the shop also carries a wide range of accessories including strings, straps, leads, pick-ups and machine heads. Folk groups are well catered for as there is a good

selection of banjos, mandolines and ukeleles in stock. "We don't stock a lot of percussion, mainly through lack of space. The same with keyboards — we just have a few electric pianos — but we will very shortly be expanding. We've doubled up on space because the shop next door was free, so we will have a lot more room."

The factory itself now has a total of 16 staff, headed by Doug. "About 18 months ago, we decided to try and manufacture our own lines under the name Macdonald Products," he said.

These now include P.A. amplifiers, mixers, speaker cabinets and graphic equalisers and, like the Dharma Sound range, have proved very popular. With a successful shop and an equally successful manufacturing company, Doug has proved that music certainly does matter.

Kent was chosen as the site for the Bose U.K. operation for two reasons. One, it's a growth area and Sittingbourne's only an hour from London; two, U.K. head Nick Pierce lived in the area.

Bose is synonymous with revolution. Bands are being encouraged to throw away bulky columns and bins and try the tiny, angular speakers made by Bose.

Nick and the company doesn't pretend that the tiny gear can replace the kind of rigs used to produce power levels rated in kilowatts, but he is keen to prove

that bands don't have to carry bulky speaker cabinets if their P.A. power requirement is a few hundred watts.

The Bose system is unique in using lots of small speakers in a small enclosure, rather than a few large diameter drivers and the company is having success in getting the message across to the right listeners.

"We've got about nine main agents in this country now," said Nick. "By the end of the year we hope to have around 20. We're deliberately keeping the numbers down and working with dealers who are prepared to work hard for the product."

Bose Switzerland have just won the contract for amplifying the Montreaux Jazz Festival in June and with this kind of record, Nick is confident that British musicians will fall under the Bose spell.

Roger Whittaker and the Black and White minstrels currently use Bose, more are sure to follow.

Pepper Music are situated in Northdown Road, Cliftonville — a sunny suburb of sunny Margate. A relatively new shop — they opened in August last year — they are open six days a week, all day and stay open till seven on Friday nights. Director Robin Day cites HH amplification as their biggest seller. "People tend to hang on to them, so we get very few back for re-sale," he explains.

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Ratfink & Corngrabber

"On the subject of re-sale, we used to track down old Gibsons etc. for customers, but we find lately that people either want to keep them or are asking silly prices. 25% V.A.T. on electric guitars has not helped either — people can buy privately a hell of a lot cheaper." Peoper also take in repairs on all stringed instruments and percussion.

Among the staff, salesman Colin Carter plays bass and sings in a local outfit, Andy Crockett takes care of repairs plus cabinet and case manufacture, and Colin Barwell is described as "an electronics wizard". Robin also informed us that they manufacture and wholesale their own speaker cabinets. "We do all the standard sizes plus any weird design a customer may want. We have just started wholesaling pre-packed items such as coiled guitar leads, jack plugs, speaker and mains leads and cabinet fittings. Most recently, we have been developing a high-quality, low-priced 50 watt combo that will be suitable for bass guitar as well as lead. We have also

started making guitar cases and when we can get the price right, we have had an offer to supply a well-known wholesaler."

Simpsons Music is the centre for musicians in Gillingham. It began life six years ago in High Street, Chatham. So rapid was their expansion that they moved to Watling Street, Gillingham two years ago. It was about this time that they started catering for groups. Shop Manager Peter Simpson explained: "We basically started off as an organ shop, expanded to general musical instruments and started doing group gear a couple of years ago."

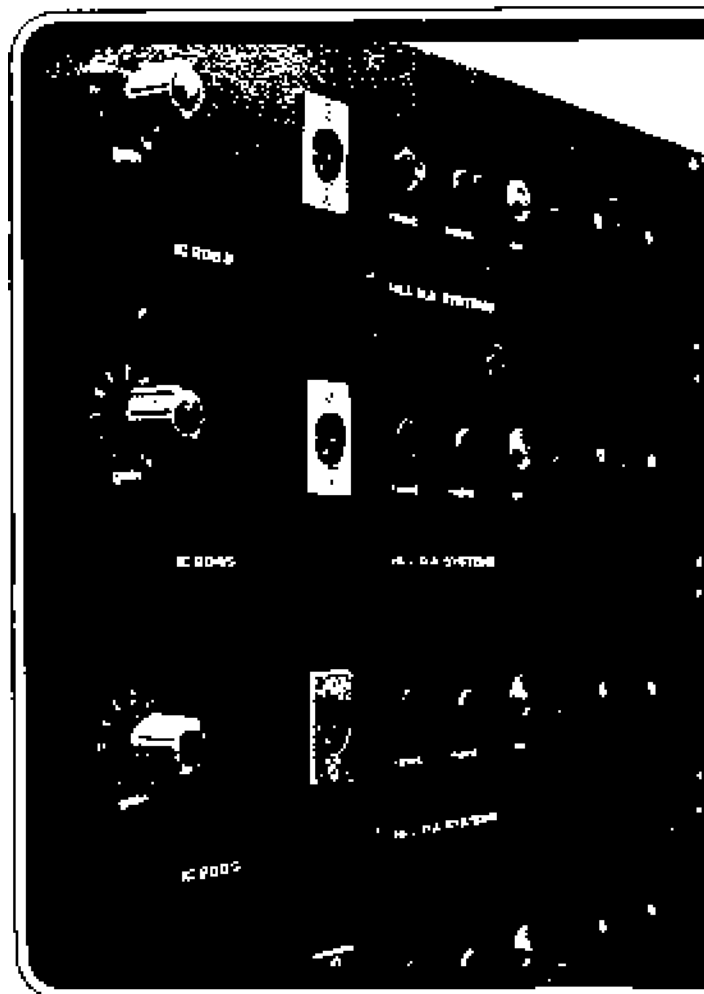
The organ department boasts such names as Hammond, Conn, Thomas, Yamaha together with Moog and Roland synthesizers, while Orange lead the amplification range. Guitars range from £11 models to various Fenders and Gibsons — Simpsons Music is a Gibson Star Dealer — catering for beginners and professionals alike. Everyone in the shop is a musician and Peter is no exception. Formerly a drummer, he now also plays organ but his love for percussion prompted him to carry a large range of drums like Sonor, Orange, Tama and Singerland.

"We've also got a drum repair shop," he added, "for refinishing and repairs, and we usually carry a lot of second-hand drums. So, drumwise, we offer a very comprehensive service."

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BUZZ: KENT

from page 93

It was a happy farrago of skill, coincidence and fortune that propelled James How's rise to prominence among the string makers of Britain. Trained as a tool maker, How's leisure interests have always included music, and string instruments in particular. As a budding violinist, he had studied seriously under a number of teachers, and that interest led him gradually to the zither, and the first of the interesting problems he would encounter.

Interest in the zither began in the early 'fifties, with *The Third Man*, and with it, James How's first problem. "When I managed to get hold of a zither, I found I couldn't get any strings for it, so I had to find another zither to get enough strings for the first one. Eventually, I wound up with a house full of zithers just to get enough strings.

The obvious solution, to an enterprising musical enthusiast with engineering skills and an eye for a gap in the market, was to go into string making. How began to design a string making machine. It took a couple of

years to get the bugs out, but by the beginning of the great guitar boom, How was in full position to take advantage. He claims to have developed the first semi-automatic string winding machine in Britain, and he was soon producing strings for Vox, Burns, and Watkins among others.

He was joined by his brother Ron and, eventually his son Martin, and today the How offices in Bexleyheath are thriving, undeterred by the memory of fires and floods which destroyed buildings but not the company in its recent past. With a staff of 80, divided between the Bexleyheath premises and the factory, How have gone from strength to strength. Their break-through in the U.S. came when the Meisel Corporation took over the American distribution, and the results have been more than satisfying.

Diversification has also been part of the How story: as well as strings for a variety of instruments, the How holdings now include a medical section, which produces wires and tubes for medical use.

Rotosound of course is the biggest name identified with James How Industries. Testimonials from players of the calibre of John Entwistle and Greg Lake have been won, and the company is firmly footed to face the remainder of the 'seventies.

continued on page 96

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BUZZ:KENT

The heart of Orange Musical Industries lies in Bexleyheath, Kent. Their factory and works are situated in Uplands Road, and it is here that most of Orange's excellent range of amplifiers, cabinets, mixers and assorted sound equipment is manufactured under the guidance of Mick Dines. "We have about 3,000 square feet of storage and assembly space," he told us, "and all the gear is literally built from scratch — it comes in as basic material and goes out as a completely finished product."

The total staff is in excess of 30, and these are divided into cabinet assembly, wiring, quality control and office administration. The accent is on quality control with Orange, as an amplifier passes through no less than 56 check points before the final inspection. "We hold a large amount of stock here," Mick added, "and can offer virtually immediate delivery on most items."

A large percentage of Orange's output is exported to America and throughout Europe and, since the Frankfurt Fair, we have received a lot of orders from places like Australia, Japan and Scandinavia."

Wing Music have enjoyed a tremendous growth in just four years. Managing Director Barry Mitchell, explains: "We were basically dissatisfied with other

retail places in the area and we thought we could do as well, if not better, which I like to think we have. It's building up nice and steady." With a rapid progression like that, it's not surprising that Barry came across the problem of a lack of space over the past year. To overcome this, Wing Music are about to open a second shop with a floor space of about 2,500 square feet.

Barry: "We've been covering drums quite heavily lately, and the new shop will certainly be a help in this direction. The same goes for keyboards — up till now, we've only been handling the smaller instruments like synthesizers and electric pianos, but we'll be able to carry some of the bigger keyboards with the extra space."

Wing Music have more than one string to their bow — they have a healthy hire business. "It's a small side of the business, but a comfortable one," added Barry. Shop Manager John Pickett controls a staff of five, all of whom are themselves musicians. "I'd like to mention that we are biased towards P.A. gear, although we carry everything else as well," he screamed. "We feel at home with P.A. Another point worth mentioning is our service. We can offer repairs and modifications to both guitars and amps. This ties in nicely with the hire thing, because it means that if anyone has any gear being repaired, he needn't be without anything." ●

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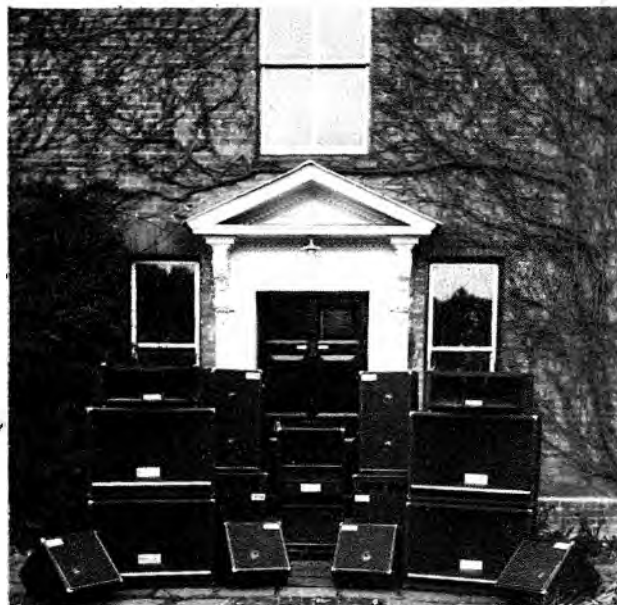
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MUSIC NEWS

CUSTOM HESSYS

BERNARD MICHAELSON, the genial boss of Hussy's Music Centre in Liverpool, reports a massive upsurge of interest in custom built P.A. systems. He's referring to compact units, giant rigs, and he's been getting personally involved with the design systems for bands who have been arriving at the shop from all over the country. Since Hussy's started their own brand of amplification, Stag, the shop has found flexibility in design to be a main selling point.

"When a band comes in, I invite them into my office and we discuss the design of the P.A. We get it together on a drawing board and then talk to the production people," explains Bernard. "Our most popular system is an HH MA100 amp with a pair of Altec speakers, peaking at around 200 watts. Altes are really incredible, they beat everything else hands down. When we build this type of system, we still manage to keep it within the conventional P.A. price and we give a five year guarantee on everything we sell from this shop." The Altes carry a lifetime guarantee.

Sorry!

READERS IN MANCHESTER and Newcastle will have noticed that Barratts musical instrument shops were not included in our recent area surveys. We're sorry for this omission; there is a reason, however, and we advise readers in these areas to watch these pages.

Demusa CMS Deal

AGREEMENT HAS been reached between CMS's George Osztreicher and the East German state manufacturers Demusa for CMS to ship a large order of guitars into the U.K. The first shipment was made in March.

This is the first time that CMS/WMI have imported from outside the Orient.

Selmer Promotes

EDDIE EDWARDS, Selmer's Export manager, has been promoted. He is now Norlin's Regional Manager, East Europe. In addition to his new responsibility, Eddie will continue to market Selmer Products world wide.

Dennis Holloway and Ted Wasdell, two well-known Sales Managers of Selmers, have been appointed to the board of the company. They retain individual responsibilities - Wasdell for key-boards and Holloway for other instruments.



Denis Holloway

Kustom Official

DRUMBEAT OF Leicester have been awarded the sole U.K. agency for Kustom amplification. The American built line of amplification, distinguished by its rich upholstered texture and bright colours, joined the Drumbeat stable after the Frankfurt Trade Fair.

CUSTOM GO LTD



Custom's Barry Phillips

CUSTOM SOUND, the company which launched Custom amplification a year ago, has become a limited company. Barry Phillips becomes Managing Director and

David Gutteridge is appointed Commercial Director. As if to celebrate the consolidation, the company has launched a new item called the CS700 MXR Mixer.

NEVE COMPUTERISE

RUPERT NEVE & Company Limited recently announced the introduction of NECAM - the company's computer-assisted mixing system. Engineering manager Geoff Watts gave a demonstration of the new system at London's Portman Hotel, on March 9th. Managing Director Peter Sidey explained: "The system uses the power and sophistication of a modern mini-computer to undertake decisions, control functions and remember actions in such a way as to offer the studio sound engineer greater opportunities for artistic expression."

The basic components of the NECAM system consist of a sound mixing console, tape machine, mini-computer, floppy

disc store, code reader, display and control panels, transport and control interfaces. The computer (model LS1 2-/10) was produced by Computer Automation, one of the world's leading suppliers of mini-computers to the OEM market.

During the demonstration, Geoff explained: "We looked at the various aspects and problems of multi-track mixing and came up with five main criteria needed to eliminate these problems: Integrated Tape Control, Instinctive Update, Unlimited Recall, Merge Capability and Time Independence. All these factors must be incorporated, together with simple operational capabilities."

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US IN U.S.

INTERNATIONAL MUSICIAN'S U.S. sales drive is being headed by Julius Graifman in New York. A month ago, International Musician launched a pilot scheme distributing the magazine from New York, and Julius reports strong interest from both musicians and newstands. Our full U.S. address is: Julius Graifman, U.S. Representative, International Musician, The Gulf and Western Building, 15 Columbus Circus, New York, NY 10023. Tel: 212-586 5417.

Chingford Elka on TV

CHINGFORD ORGANS and Elka Orla have jointly mounted a pilot television campaign to boost sales of the Elka Capri 101 keyboard. It is the first time that either company has used TV advertising.

Transmission of the ad started in the Anglia TV area on March 20 and Chingford boss Gene Ashworth says he's prepared to bring the campaign to London screens if the pilot is successful. Chingford's Northampton branch will be the first retail store to cash in on the sales drive. The keyboard that has excited the interest is a new model available in either home or portable versions. Both sell for £399 (including VAT).

New Top Gear Co.

STRINGS AND THINGS, a new company handling musical merchandise in the U.K., has set up in the Top Gear stable. Called Strings and Things, the directors are Craig and Rod Bradley and Ken Achard.

The first products distributed by the company include Ernie Ball and Earthwood fretted instrument strings.

FUND

RON COOPER of Kitchen's has asked us to make an announcement on behalf of the Music Trades Benevolent Fund. Mike Cockram and Ron ask all ticket sellers for the fund raffle to let them have the return of ticket stubs and cash by the end of April. Ron and Mike thank the sellers for their efforts.

GERRY EVANS, genial head of Pearl's European operation, called into our London office recently with a cake to celebrate International Musician's first birthday.



ELGAM SPORT



Chris Lord with the Elgam car.

FIRE UNDER the bonnet of the Elgam Organs sponsored rally car cost driver Chris Lord his "First In Class" placing in the Mintex International Rally. The car, a Vauxhall Magnum coupe, was prepared and raced under the sponsorship of J.T. Coppock, the distributors of Elgam organs. It suffered a 20 minute delay due to an electrical fire on the second

day of the rally. At that time, it was leading its class by three and a half minutes. It was eventually placed second in its class. The official launch of the car took place in late February. Held at Wakefield's Albany Hotel, the guests of J.T. Coppock's directors included members of the press and a number of Elgam dealers.

Pearl

It's that kind of attention to the details of business that has put Pearl into a leading position. Thanks, Gerry.

L-R Gerry Evans of Pearl, Rick Desmond of IM

AR SPEAKERS

A NEW range of hi-fi speakers has been launched by Acoustic Research. AR speakers are of particular interest to musicians, as they offer a particularly flat frequency response pattern and are useful for domestic monitoring in home recording applications.

The launch of the range was held at the Esso Hotel in Luton and dealers and press from all over the country gathered to hear the various speakers demonstrated.

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MICK BOX



Uriah Heep are a throwback band. If they were playing the kind of material that got them off five years ago today, they'd get nowhere. They've had their bad times and they're currently on the up at the moment with the momentum of new bassist John Wetton. Their music is straight rock, pure and simple, but without the hard brutal street-sound that have pulled Status Quo out of the boiling pot of "name" bands and recommended them for assessment of cultural importance.

Heep play it straight and, seemingly, tirelessly. Bands with greater pretensions to artistic fulfillment would have given up long ago and gone solo or turned into new avenues. The continuity of Heep has become their strongest weapon.

Mick Box makes a good living. He isn't a millionaire, he makes the kind of good living that comes to a slick lawyer or an obsessed businessman and for a kid with little education and a more or less intact psyche, that's doing OK.

He cares about his guitar playing. He admits to practising on occasions and recognises improvement in technique.

"I surprise myself sometimes when I pick up a guitar after having left it alone for some time. I don't notice much improvement when I'm playing all the time, but when I come back I'll often play something I didn't know I was able to."

Box's life is almost a blueprint from which second-rate TV scriptwriters could research the rock'n'roll industry. He's surrounded in insularity of group life. Because the band work all the time, touring nine months a year, the members have no real chance of standing back and making an objective assessment of progress. Feelings of development come from within and are measured from on stage or recording experiences;

Wetton was a sufficiently powerful experience to create new currents.

"Things have really got better since Gary left the band," said Mick, seeing the negative rather than the positive in the situation. "It's never been better for us now."

When Box was talking he was facing the mix on the band's new album — the first one the band have produced themselves. He was laughing about the nonsense of ear damage resulting from working at high levels.

"We don't monitor at loud levels," he admitted. "We try to keep it down so we can hear it properly."

many people work that hard for far less. Mick keeps his head together, however, he's not walking the intellectual tightrope that demands careful attention. The emotional charge from the band saturates him and he's drinking. At home he has the tools of the trade, the home studio has become almost obligatory and it's not surprising, considering the musician's quest for that ideal life, dream and finds that relief at the same time. It's like buying a whore and getting a rebate. Mick's got a real tough channel machine — "It's really amazing" — and a Teac mixer. "I was thinking about an Allen & Heath job or something like that, but I thought I'd better stick to Teac." He's got a Revok to take his mix down but he hasn't lined a room with acoustic material or stepped into the commercial area of studio building at all.

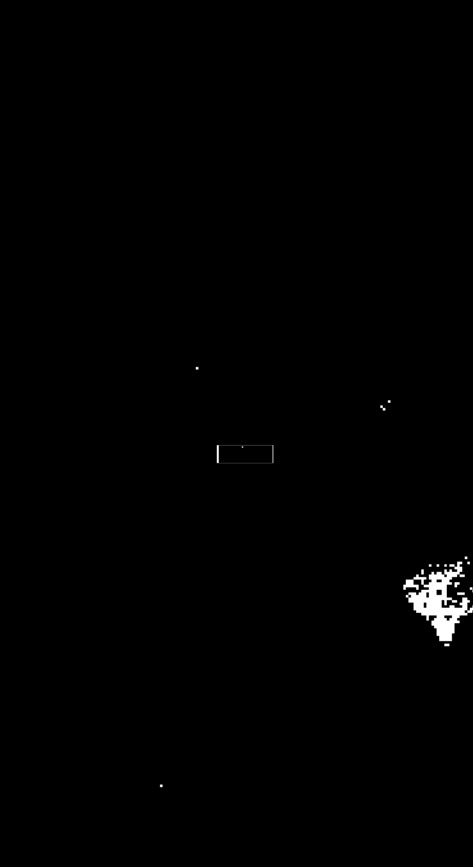
Most of the band have got these machines and then manager, Gerry Parthenos and the famously equipped team of four technicians. There's a consumer capable of recording at high levels and sacrificing separation for feel, the band are happy with the kind of machine you find in a good hi-fi store. It'll sound like an ideal hi-fi.

comes from a semi-intellectual thing. The band have almost run out of new audiences. The Far East, Australia and most of the western world has succumbed to their spell, and a tour scheduled for later in the year takes the band around the few remaining European capitals that they haven't seen.

The stories mount up, like the tiredness. Surprisingly, Mick Box says he still likes hotels and there are certain things he looks forward to on his tour schedules. "No, I don't," says Mick, surprised at the suggestion he might get lonely. "There's too much going on all the time. Even when you go out clubbing and it's all lead when you get back to the hotel, you kind of curl around the curtains, putting your ear to the door and somebody's usually talking."

Mick thinks a lot. All kinds of things come into his head, he's a very thoughtful person. He's a very thoughtful person. He's a very thoughtful person. He's a very thoughtful person. He's a very thoughtful person.

and it will be each music market. They can see on their itinerary they're touring quite a few great venues, that's the road, the band play the large arenas and you read that on the American tour. The band is a you-read thing. The band is a you-read thing. The band is a you-read thing. The band is a you-read thing. The band is a you-read thing.



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The musical instrument show in Frankfurt was a good one! People who make and sell instruments all over the world gathered for a week in the heavily industrialised city and showed each other their products and worked out new and better methods of trading.

Last year's show was poor; trade was down and lots of companies said they wondered if it was worth all the effort. This year they were reassured: attendance increased by 12 per cent, and most companies reported good orders coming from the show.

Musicians with the money to get there went to the show, tried the gear and were bewildered by the choice. It's the biggest music shop in the world, but you can't carry anything out. Here are our photos and captions from the show.

FRANKFURT



Stramp boss Peter Striven was kept busy showing new products. The range includes amps, mixers and speakers.



Disco specialists Soundout Laboratories believe they'll benefit from specialisation. Dave Street and Todd Wells demonstrated the Series III disco unit.



The two Johns, Lomas and Lawson, flew the J.T. Coppock flag. Main Frankfurt line for this British wholesale company was Elgen amps.



The most famous name in amplification, Jim Marshall (right) with Tony Morris of Rose-Morris, the company responsible for world wide distribution of Marshall amps.



The German arm of CBS/Arbiter. Usual Fender, and Rogers products, and helpful staff.



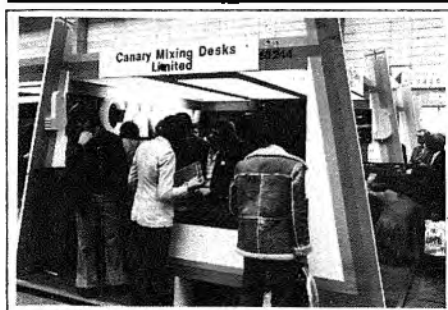
Larry and Jean Macari, always ready to welcome visitors to the Sola Sound stand. Pedals, amps and accessories are the main lines.



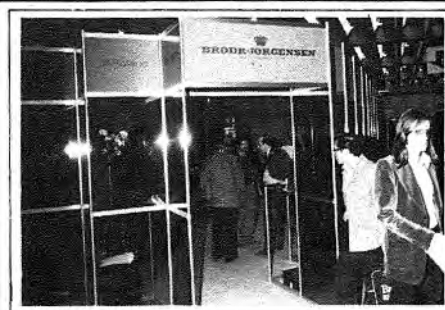
The sizzling new product from Rosetti, SW amps were displayed fully.



Cleartone, the Birmingham based wholesale organisation had a main display of their own CMI amps.



Bob Birthwright, boss of Canary mixers, chatting to a customer.



Brodr Jorgensen, European distributors of Roland products, were always busy.



Alberto Romagnoli of Pari demonstrating the tone wheel generator organ range.

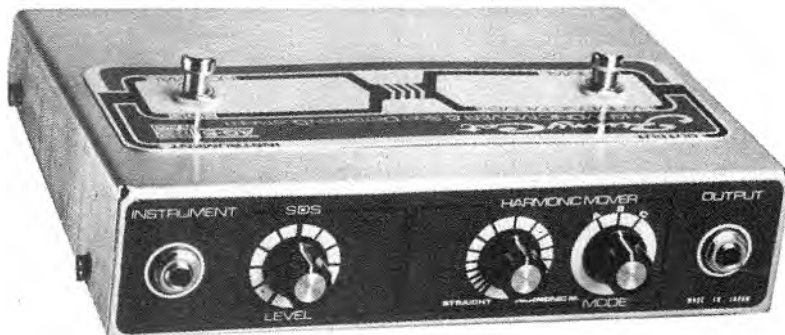
continued on page 106

EFFECTS PEDALS

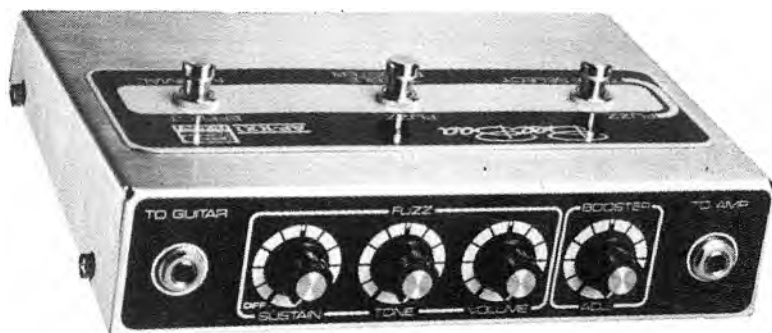
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AW-10 WAH BEAT
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FRANKFURT

from page 103



Elka-Orla: Nando Fabi and Dec McLaughlin were in attendance.



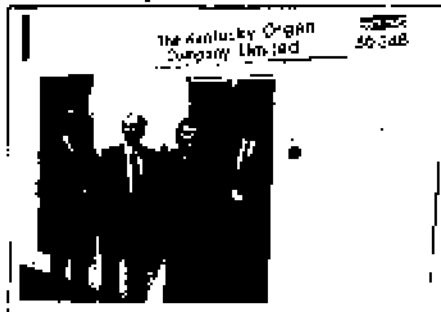
Here is where we were. Gene Ashworth and Gerry Haim of Chingford Organs flank our own Mr. Page.



The Acoustic Control stand. Purely professional equipment on show.



The Italian flair for design is not only apparent in the Dynachord range of amps, it also shows up in the stand design.



We call this "The Kentucky Minstrels."



MCH, Arp studio. Jock Robertson from the UK was on the stand.

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FRANKFURT



This was Burns U.K.'s first Frankfurt outing. They reported very good business.



Leeds based Hornby-Skewes showed some new products aimed at the educational market.



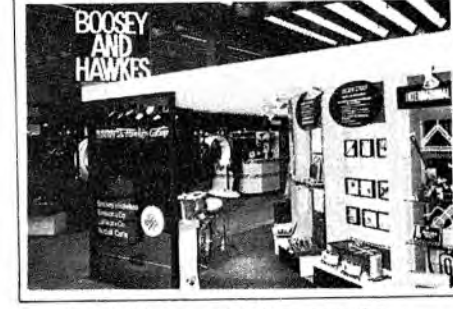
Laney amps, well known in the U.K., showing for the first time at Frankfurt. This is the Electronic Manufacturing (Sales) Ltd. stand; they're Laney's parent company.



Super salesman Alan Marcusson on the British Music Strings stand.



Keith Beckingham and Tony Kilby from the U.K. were on hand on the Hammond Organ stand.



Jacob Kahn said "Greatest show ever" when we asked him how Boosey and Hawkes had done.

continued on page 111

THE SENSATIONAL NEW CANARY 10/4 Mini Studio Mixer

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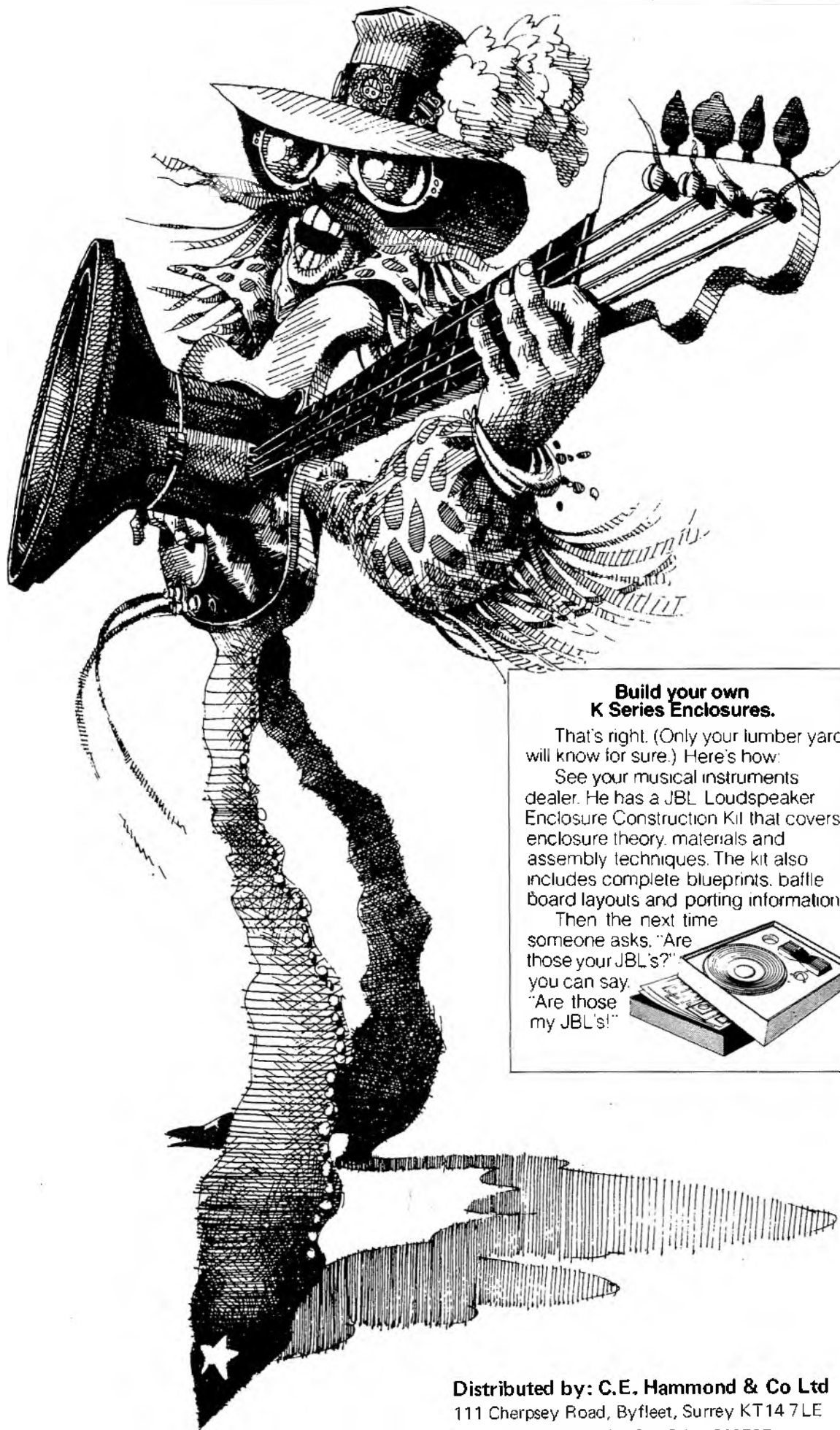
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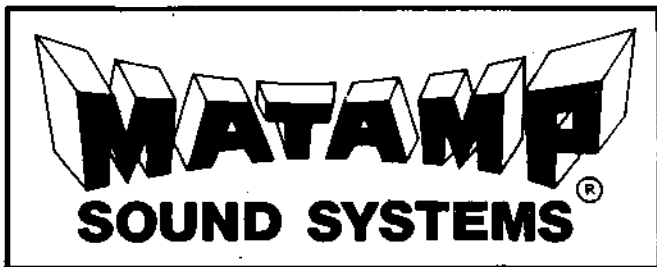
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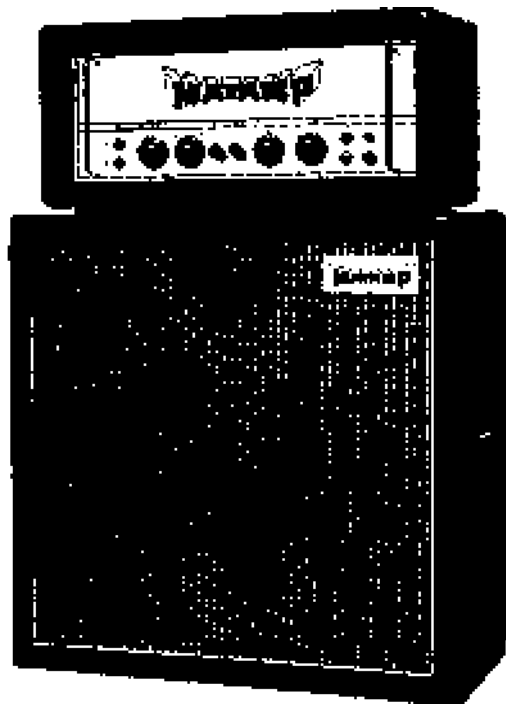
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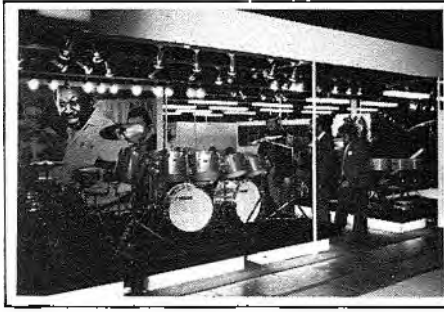
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FRANKFURT

from page 107



Bose, hammering home one more time the message: You don't need tons of gear to produce loud clear P.A. An impressive display of their compact systems.



Quality engineering from Sonor displayed by boss Horst Link. They're competitively priced in the U.K. at the moment.



Andy Bereza talking Teac on the JBL stand.



Barry Denton on the AKG stand, ready to show the range.



Kind thoughts from Farfisa — somewhere to sit down amongst all that space. They displayed their fine range of organs too.



Mighty Norlin, U.S. giant of the instrument business. Gibson, Moog and a few more new names were on display.

continued on page 115

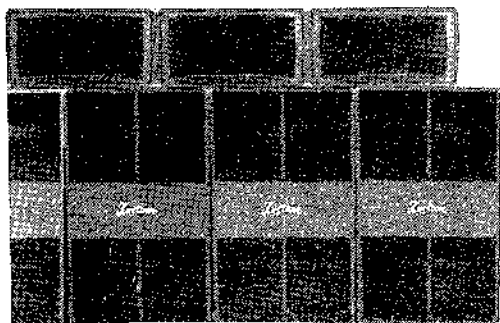
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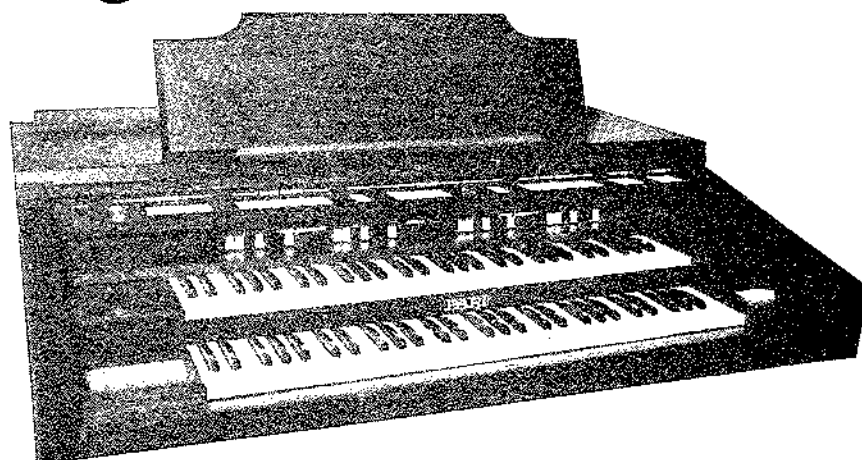
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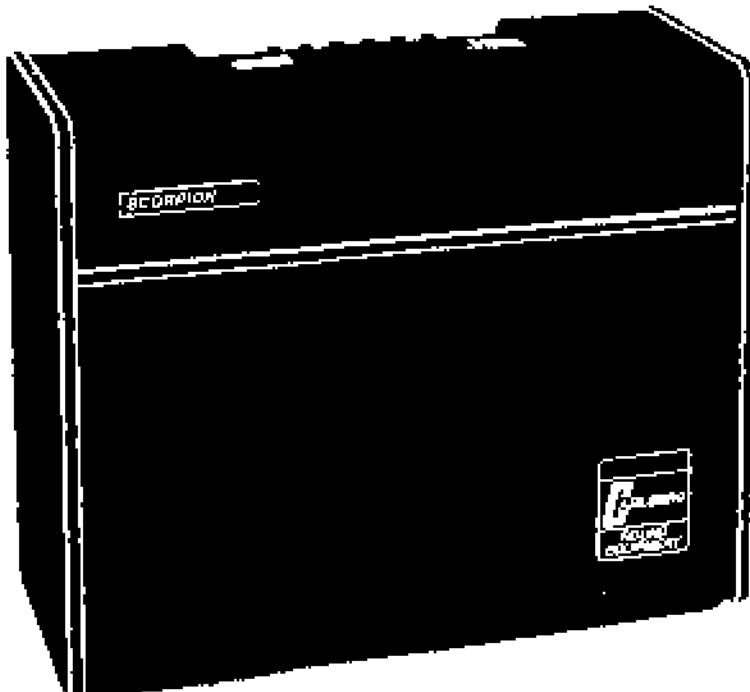
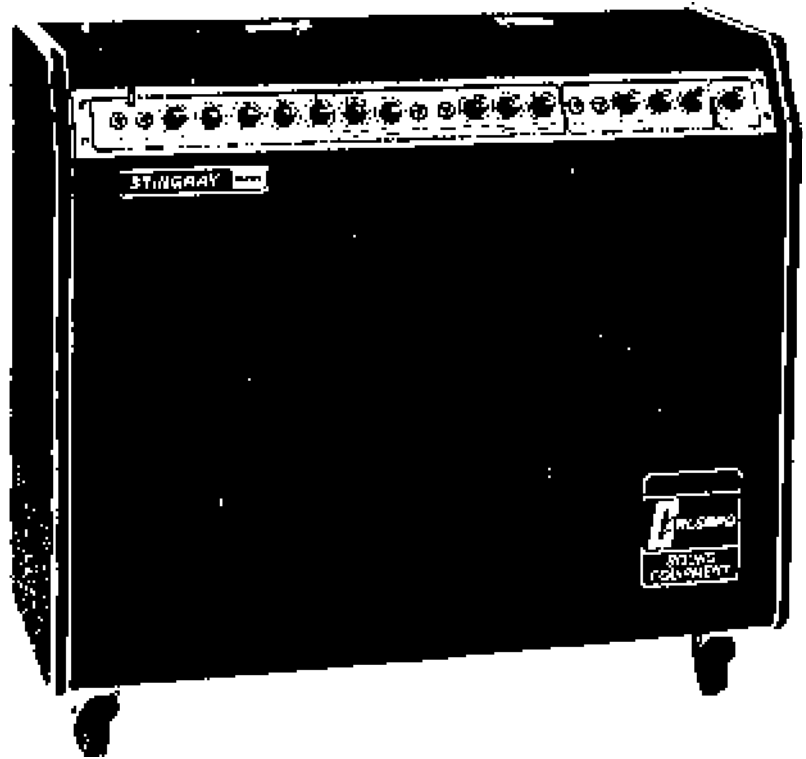
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Height 21 1/2" (546 mm), Width 26 3/4" (679 mm) Depth 11" (279 mm), Weight 58 lbs.

For further details contact your nearest dealer or:-

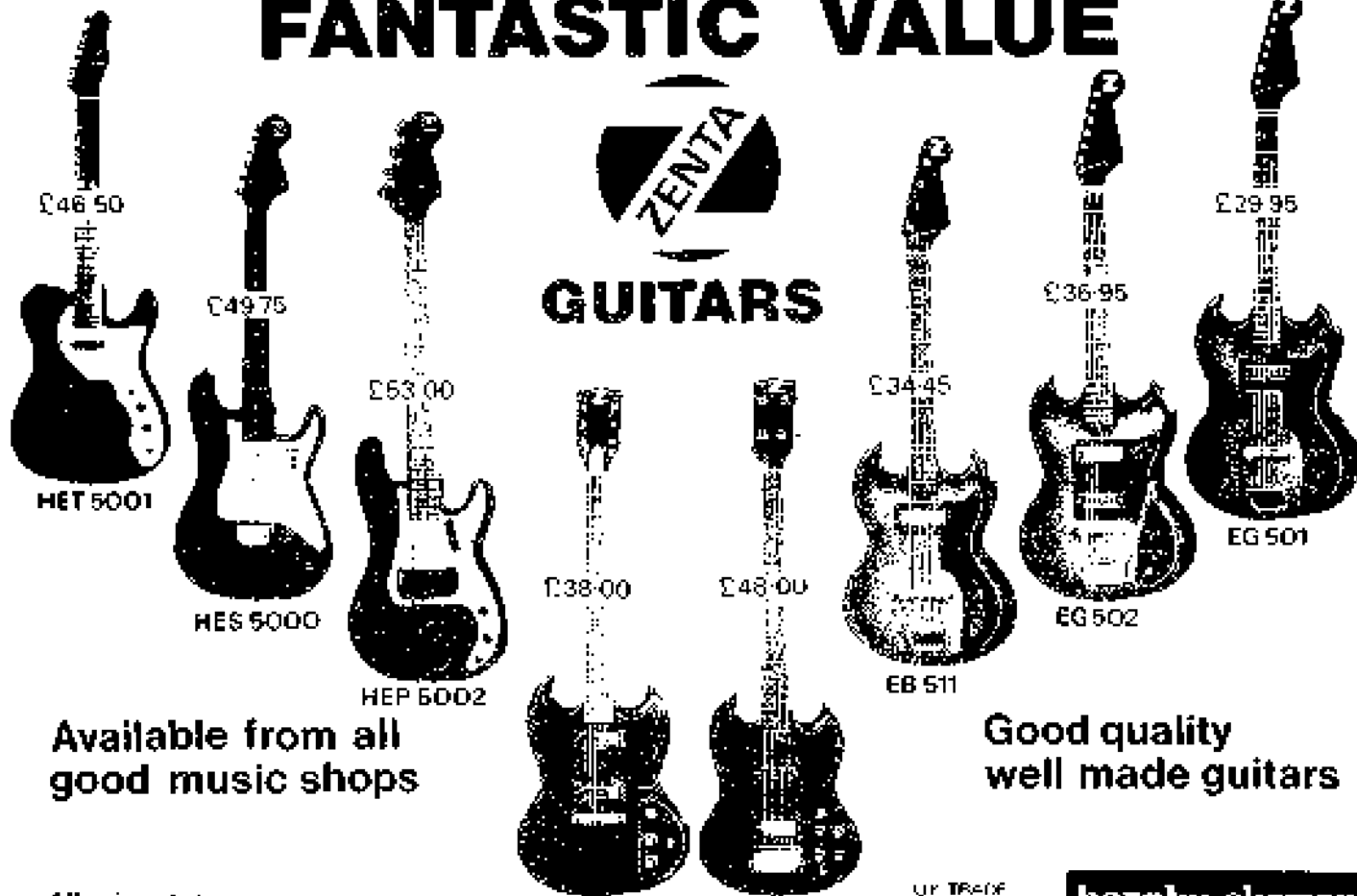
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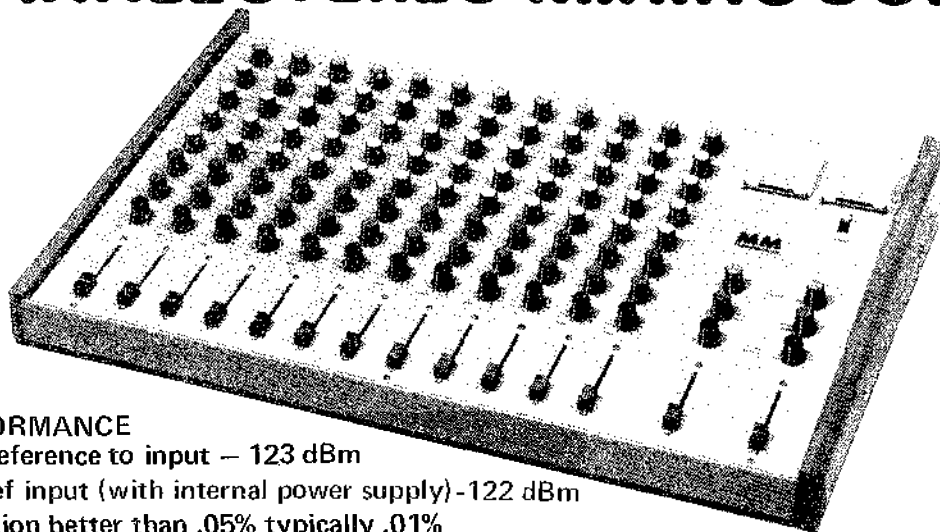
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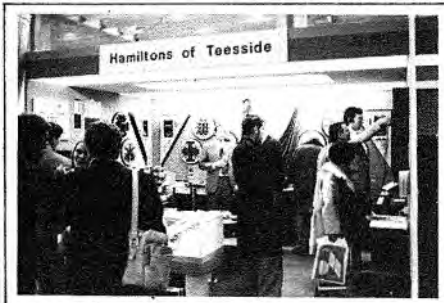
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FRANKFURT

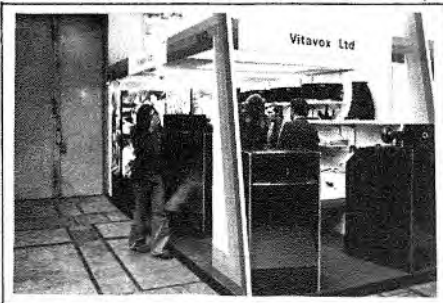
from page 111



L-R Maiani Yanagisawa, Gerry Evans and an other Pearl executive. Gerry was busy heading up Pearl's drive into Europe.



Another first at Frankfurt. Hamiltons of Teesside. (That's an area in North East England) showing their range of musical aids.



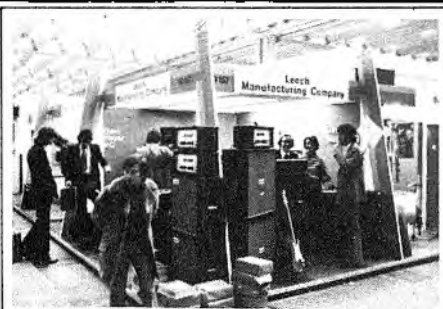
Thunderbolt, the bin revealed with agonising solemnity by Vitavox, shown as a product item for the first time this year.



Benefactor of British drummers, Ivor Arbiter standing proudly behind Jon Hiseman, who's been playing an Arbiter Auto-Tune kit.



Alfie Stein peering from the back of the GMS stand. Dave Martin, GMS's dynamic sales director, on the right.



Leech, a cabinet making company from Manchester, gave a little of their space to Custom Amplification and at the moment we snapped this pic, Mat Mathias of Matamp was also on the busy stand.

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X55



CHARACTERISTICS:

Dimensions: cm 103 x 38 x 18
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SPECIFICATION

Upper Keyboard: 49 keys from C to C. 9 Draw-bar voice registers: Flute 16' - 5 1/3' - 8' - 4' - 2 2/3' - 1 1/3' - 1 3/5' - 1' - 2'

5 Percussions: 8' - 5 1/3' - 4' - 2 2/3' - 2'

Presets: Clarinet, Trumpet - Full Organ - Theatre and Draw bars.

Lower Keyboard: 37 keys from C to C. 5 Draw-bar voice registers: Flute 8' - 4' - 2 2/3' - 1' - 2'

Effects:

Vibrato: Slow/Fast
Sustain on the upper and lower keyboards
Brilliance
Noise Attack

N.B. Upon request, the instrument may be supplied complete with pedalboard.

ADDITIONAL CHARACTERISTICS This portable organ is extremely compact for easy transportation having lockable carrying lid and carrying case for legs and pedalboard.

FRANKFURT



Tone Cabinet specialist Sharma, bringing a touch of class with a laid back, tasteful stand lay-out.



Stuart and Shelia Mercer reveal the Carlsbro goods at Frankfurt. Colin Barratt looked for exports.



Gordon Gibbons confirmed that General Electro Music scored a great success at this year's show.



Zoot-Horn: Up-market, totally professional mixers for both road and studio use. A particularly interesting stand.



The cheeky Dave Simms once again pushed the personality boat out and took August amps to Europe. There were also lights, disco and effects.



Both Mr. and Mrs. Davoli backed up their products by appearing on the Davoli stand. *continued on page 118*

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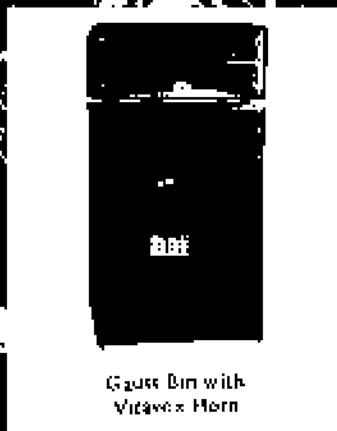
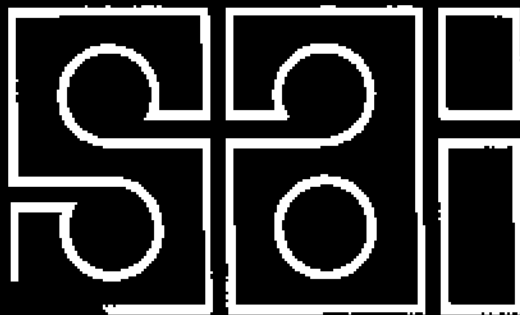
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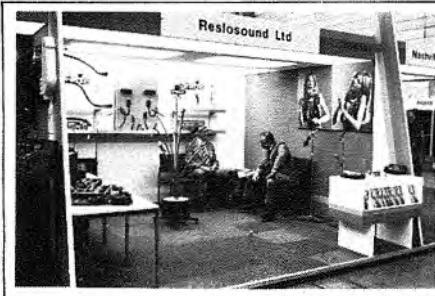
STRINGS

FRANKFURT

from page 116



The huge Peavey stand. Obviously, a major force in American amplification, it is now making strong inroads into the European market.



Resosound, the company which make attractive stage mikes and radio mikes of the future, mounted an attractive display. George Stone was on hand.



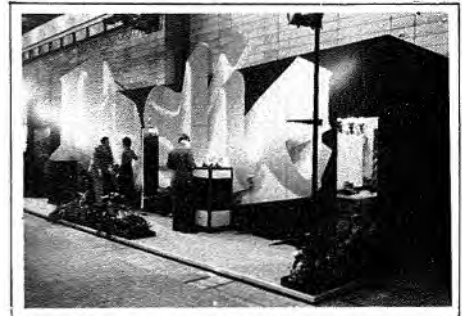
The R.M.I. keyboard synthesizer, demonstrated here by Clark Ferguson to Larry Macari of Sola Sound and Rick Desmond who has connections with this publication.



Colin Barratt had his own "export special" stand this year. Goods basking in the international limelight included PA:CE mixers, Barratt amps and Azumi Guitars.



The struggling infant of the British string industry, Nashville Music Strings shaped up well in Germany. Head Jeff Jeffries was in attendance.



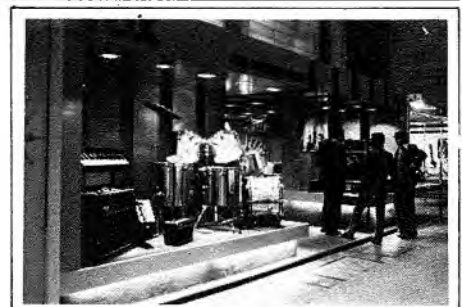
A heroic display from Leslie, the speakers that go round. The stand was entirely given over to a demonstration booth.



The HH team, Mike Harrison and Clive Bradbury, reported great success for HH amps.



Premier, Britain's leading drum manufacturer, also reported excellent business. Eddie Haynes and Roger Horrobin controlled the venture.



Tom Jennings reported Vox to be so popular that several models were stolen from the stand. Reg Clark helped the sales push.



The Crumar stand. This mighty keyboard manufacturer displayed a cabinet version of a Haven 60 organ and a trainer home organ amongst their many other products.



This is a new Yamaha super jumbo guitar shortly to be made available in the U.K.



Wem dominating as usual. On the stand, Charlie Watkins, also as usual.

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1001	1st Plain	.010	0.09	4001	1st Plain	.010	0.20
1002	2nd Plain	.13	0.09	4002	2nd Plain	.013	0.20
1003	3rd Plain	.025	0.17	4003	3rd Plain	.015	0.20
1004	4th Wound	.032	0.19	4004	4th Wound	.028	0.55
1005	5th Wound	0.40	0.22	4005	5th Wound	.032	0.65
1006	6th Wound	.053	0.24	4006	6th Wound	.040	0.70
1000	Set of 6 Strings		1.00	4000	Set of 6 Strings		2.50
COUNTRY AND WESTERN—SET 200 (Bronze)				LIGHT GAUGE — SET 5000 (Nickle)			
2001	1st Plain	.013	0.17	5001	1st Plain	.011	0.20
2002	2nd Plain	.016	0.17	5002	2nd Plain	.014	0.20
2003	3rd Plain	.026	0.36	5003	3rd Plain	.017	0.20
2004	4th Wound	.033	0.46	5004	4th Wound	.028	0.55
2005	5th Wound	.041	0.49	5005	5th Wound	.035	0.65
2006	6th Wound	.057	0.60	5006	6th Wound	.043	0.70
2000	Set of 6 Strings		2.25	5000	Set of 6 Strings		2.50
ERIC CLAPTON ULTRA LIGHT GAUGE — SET 3000 (Nickle)				MEDIUM GAUGE -- SET 6000 (Nickle)			
3001	1st Plain	.0095	0.20	6001	1st Plain	.021	0.20
3002	2nd Plain	.012	0.20	6002	2nd Plain	.015	0.20
3003	3rd Plain	.015	0.20	6003	3rd Wound	.023	0.40
3004	4th Wound	.025	0.55	6004	4th Wound	.029	0.55
3005	5th Wound	.030	0.65	6005	5th Wound	.037	0.65
3006	6th Wound	.038	0.70	6006	6th Wound	.045	0.70
3000	Set of 6 Strings		2.50	6000	Set of 6 Strings		2.70
SUPER ULTRA LIGHT GAUGE — SET 3000SU (Nickle)				CLASSIC NYLON — SET 9000 (Silvered Copper)			
3001SU	1st Plain	.0085	0.20	9001	1st Plain		0.12
3002SU	2nd Plain	.011	0.20	9002	2nd Plain		0.13
3003SU	3rd Plain	.015	0.20	9003	3rd Plain		0.15
3004SU	4th Wound	0.24	0.55	9004	4th Wound		0.30
3005SU	5th Wound	.030	0.65	9005	5th Wound		0.36
3006SU	6th Wound	.038	0.70	9006	6th Wound		0.39
3000SU	Set of 6 Strings		2.50	9000	Set of 6 Strings		1.45
BASS GUITAR WIREWOUND — SET 7000 (Nickle)				SOUND CITY TAPEWOUND — SET 8000 (Nickle)			
7001	1st		1.10	8001	1st		1.26
7001	2nd		1.31	8002	2nd		1.55
7002	3rd		1.68	8003	3rd		1.96
7004	4th		1.86	8004	4th		2.18
7000	Set of 4 Strings		5.95	8000	Set of 4 Strings		6.95



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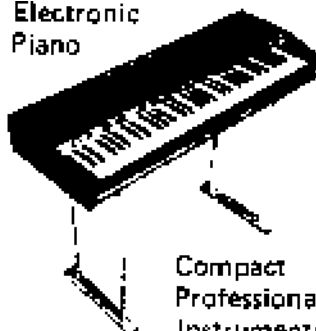
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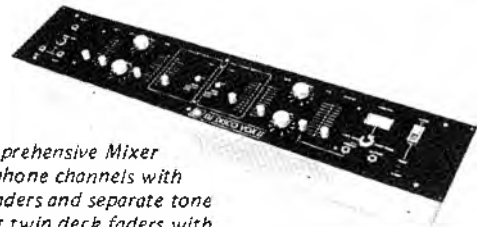
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