PROJECT PROFILE:
UCD Agricultural Faculty Building

INTERVIEW:
Gordon Brickenden

PRODUCT REVIEW:
Sanitary Ware
IhVex 79 represents a unique opportunity to promote to the entire Irish heating, ventilating, air conditioning, refrigeration and environmental trade. With this one-stop specialised buying exhibition the third IhVex breaks new ground with a major development, for the 79 event will broaden its industrial content: special emphasis on refrigeration will greatly increase the Exhibition's significance. Energy saving will be given special emphasis and will be reflected in the presentation of pump development, advanced insulation materials and techniques, heat recovery systems and controls for energy optimisation. Yet again IhVex will provide the forum for the maintenance of growth and development of the industry it has served with such success.

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Reflecting its increased scope and significance IhVex 79 is moving to a much larger venue in Dublin's newest and most advanced exhibition complex—the Royal Dublin Society's Simmonscourt Pavilion. Here IhVex 79 exhibitors will have a setting which will allow them to capitalise to the full on their exhibition investment. As organisers of a number of highly successful trade and public exhibitions in this new complex, ITTEX will be bringing their wide experience to bear on IhVex 79. Not least is the high level of presentation which the modern Simmonscourt facility allows and where ITTEX employs a number of special features including a unique bar/viewing area. IhVex 79 will also have available a full-size theatre style auditorium which immediately adjoins the exhibition area and the extensive restaurant facilities for its VIP Luncheon Scheme.

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**OPEN TIMES**

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Wednesday: 11.00 hrs – 21.00 hrs

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In this Issue

CIBS Dinner

The large turnout at the Shelbourne Hotel recently for the CIBS Annual Dinner enjoyed a most entertaining evening. Guests included many prominent members of the industry, many of whom were ‘captured’ by our photographer (page 10).

Project Profile

Because of the nature of the studies to be carried out there, the Faculty of Agriculture building at UCD presented the services engineers, Delap & Waller, with a considerable number of problems. Not least of these was the requirement for maximum flexibility within the services distribution system itself (page 18).

Company Profile

IHVN talks to Sean Keegan and Declan Murphy of Tru-Flo Ltd about the growth of the company following its formation in September 1973 after a chance meeting between the two men concerned (page 22).

IDHE Image

In this month’s interview Gordon Brickenden, IDHE Chairman, calls for an end to the low profile previously maintained by the Institute, particularly on matters of major national importance (page 24).

Rationalising Lecture Programmes

F R McBride, Hon Secretary and Past Chairman of the Institute of Fuel, calls on all professional bodies and institutes to rationalise their lecture programmes to increase attendance and stimulate interest since all are calling on the same nucleus of people who, however well intentioned, cannot possibly be in two places at once (page 26).

‘Living’ Bathrooms

Until recently, bathrooms were regarded as merely another utility, like the laundry room. However, they are now undergoing a similar transformation to that of kitchens and, while we may not yet be ready to think of them in terms of “restrooms”, as the Americans do, there is no good reason why they should be uncomfortable (page 27).

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Electricity

Come off that peak and save money

The period of peak demand for electricity at present is between 5 p.m. and 7 p.m. daily. If you can alter your use of electricity to times outside this period, you can avail of non-peak rates and save money. These non-peak rates are (a) night rate and (b) off-peak day rate.

Saving with Night Rate.
The night-rate offers cost-saving advantages where storage type heaters are suitable. Storage type heaters take in heat at night when cheap electricity is available and release it when needed during the day.

Storage heating is, in fact, the ideal choice for commercial premises. It is cheap to instal; clean in operation and requires no space for fuel storage. The night-rate also applies to insulated water storage cylinders and other electrical services.

Saving with off-peak space heating rate.

You can benefit from this specially reduced rate if your premises are heated by any type of electric heaters other than storage radiators. This rate is specially suitable for premises where supply interruption during peak hours (at present 5 p.m. to 7 p.m. in winter time) is acceptable. If your premises are used on an occasional or casual basis then this rate may be right for you.

Saving with off-peak waterheating rate.

Another cost-cutting rate is that which covers waterheating. This rate is particularly suitable where a peak time interruption of electricity supply (at present 5 p.m. to 7 p.m. in winter time) would not affect productivity.

To find out if you can benefit from our non-peak rates please fill in the prepaid card in this magazine and post to us.

ESB

*Non-peak rates are cheaper because when customers switch from peak time demand E.S.B. production costs are reduced. The resulting savings are passed on to customers in the form of cheaper non-peak rates.
Building Information Centre Opened

Unavoidable delays in the installation of telephone lines resulted in several postponements to the opening of the new Building Information Centre announced earlier in the year. These difficulties have finally been resolved, and the new Centre has now commenced operations.

The Building Information Centre is a non-profit-making self-financing information and documentation centre established by the Construction Industry Federation for the benefit of the industry as a whole.

Two basic services are operated: a Building Information Service available to firms and individuals on a subscribing membership basis, and a literature display and distribution service for manufacturers and distributors of building products.

The new Centre is located in a single-storey office building which forms an annexe to the CIF's office at 4 Northbrook Road, Dublin 6. Manufacturers, agents and distributors of building products are invited to supply details of their products and services for free inclusion in the Centre's records. The Centre will accept one full set of each manufacturer's catalogues and data sheets for free inclusion in a Central Commodity File.

It is intended that this Commodity File will contain information on all products and services used or usable in the Irish industry. A loose leaf filing system has been adopted to facilitate updating and the literature is classified on the CI/SFB system.

It will greatly assist the Centre if all firms supplying products or services to the industry will send a full set of their catalogues or other trade literature right away and at the same time place the Centre on their mailing list for new and updated literature, for news of new agencies or any change in representation.

Gas on Stream

Marathon Petroleum began formal deliveries of natural gas from the Kinsale Field on 1 October last.

The original agreement between Marathon and Bord Gais was for delivery to commence on 1 April 1979 and Marathon have been seeking a special price arrangement for the period of deliveries up to that date. However, it is believed that Bord Gais refused to do a deal on this arrangement and it is not known if in fact any settlement was reached.

In the meantime neither the ESB nor Nitrigen Eireann, the two primary users of the natural gas, are yet ready to accept the full amount available to them.

Munster Agent for Air Monitors

Vendwell Ltd of Cork, importer and distributor of automatic vending systems, has expanded its marketing activities by securing the agency for Airmonitors air cleaning equipment for the Munster area.

Operating from its offices at Rockgrove Industrial Estate, Little Island, Vendwell now provide a full sales and service operation for Airmonitors range of equipment. The Airmonitors units are operated on the electrostatic filtration principle and, in addition to providing clean air in commercial and industrial premises, achieve high savings on heating costs by purifying and recycling air already heated.

Launched earlier this year in Ireland by the Dublin-based Air Monitors Ireland Ltd, the equipment has already been installed in many of Dublin's major public houses and it is expected that similar success should be achieved in the South with the appointment of Vendwell as Munster agents.

Pollution-Free Carbogel Fuel

A new technique whereby coal is transformed into a paste or gel that is virtually free from such impurities as heavy metals and inorganic sulphur has been developed by the South-Swedish firm of Scania-Inventor, Helsingborg. The method – on which various patents are pending – is said to make coal almost pollution-free.

The coal is first of all crushed to 40-50 micron particles by means of wet grinding. A 30% admixture of water is added as well as 0.3% proportion of a special chemical preparation that jellyifies the coal dust and prevents it from settling. The coal's impurities are separated mechanically during the grinding process.
IHVN NEWSDESK

stage — a process aided by the chemical additive, which is said to be wholly innocuous. A little calcium hydroxide is also added, to help expedite the release of organic sulphur during burnings.

The resultant fuel — dubbed Carbogel — is easy to handle and can be transported cheaply in existing oil distribution systems such as, conventional tankers cisterns, and pumps, Scanialventor says.

Incineration occurs inside a rotary burner, with oil being used to set the gel afame. A proportion of the flames are caused to circulate around the funnel-shaped burner, thereby drying and heating up the incoming gel.

The water content of the gel — which produces an energy loss of little more than 1 per cent — acts like a catalyst with respect to incineration. It is calculated that the new fuel costs barely more than half as much as oil.

Carbogel has been tested with satisfactory results under laboratory conditions in a 0.3 MW burner and it is now planned to construct a 4 MW unit. Scanialventor also intends to erect a complete production line for Carbogel.

CIB International Symposium

This symposium (28 May - 1 June 1979) is being organised jointly by the CIB Working Commission W67, SOFUS-BVG (Danish cooperation on research, development and service in building) and the Danish Building Research Institute. CIB is the International Council for Building Research Studies and Documentation.

The main purpose of the symposium is to review research and development aspects of energy conservation in buildings, to provide an opportunity for an interchange of experience concerning conservative measures, design methods and assessment methods and techniques, and to identify research needs.

Attendance at the symposium is open to all, but there is only a limited number of places available (approximately 300). The symposium is mainly oriented towards people working with energy saving techniques, and methods of designing and planning for low energy consumption in buildings and building services.

The proceedings will be conducted in English and French.

The fee for the symposium is DKR 1500. This will cover admission to all sessions and the costs of preprints, one copy of the proceedings to be published after the symposium, lunches and refreshments each day, a symposium dinner and a reception.

Details from SBI Danish Building Research Institute, CIB Energy-Symposium, PO Box 119, DK-2970, Horsholm, Denmark.

UK Contracts for Mahon + McPhillips

The water treatment division of Mahon + McPhillips Ltd has been awarded three contracts in the UK worth £100,000. The first two contracts are for the supply of rotary bridge scrapers to Loughborough Water Reclamation Works on behalf of the Severn-Trent Water Authority and to Queensferry Sewage Treatment Works on behalf of the Welsh National Water Authority.

The third contract is for a meat plant in the West Midlands and involves the supply of a floating aerator, horizontal brush aerator, sludge wheel and settling tank equipment. Mahon + McPhillips will commence manufacture of all the equipment in Kilkenny shortly.

Mahon + McPhillips will also be exhibiting in the Environmental Pollution Control and Effluent and Water Treatment Exhibition in the National Exhibition Centre, Birmingham, from 13-18 November 1978.

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ESB Continue Study of District Heating

Continuing its study of combined heat and power as a form of energy saving, the ESB has employed a firm of engineering consultants to develop a set of standards and specifications appropriate to Irish conditions. The ESB has already carried out two pilot surveys in the city of Dublin, and this is the third stage in an ongoing study.

Combined heat and power means moving away from the concept of individual heating units for each premises to the concept of a centralised heating supply, such as by group and district heating. Group heating schemes supply small building complexes such as groups of 150 to 500 houses. District heating schemes supply larger complexes including commercial and industrial premises, more widespread in area than group heating but still supplying a heat load of sufficient density to justify the heavy investment in insulated pipe distribution networks and central boiler plants.

Such schemes become economic only when sufficient heat load is accumulated to justify the cost of connection to a combined heat and power station.

The consultants, J A Kenny and Partners, Consulting Engineers and Project Managers, have now submitted a draft proposal for the investigation of codes of practice, standards and specifications for group and district heating installations. The concept has become more complex in recent years, with the change in energy costs and its prospective supply position, according to the draft proposal.

A major task, among others, will be the review of recent and current practice in Great Britain and in certain countries in Western Europe, to identify the codes of practice as well as standards which currently obtain, and a review of current heating practice as to boilerhouse temperatures, pressures and other design criteria worked to in Ireland.

The draft proposal also recommends that a pilot scheme should be designed and constructed as soon as possible.

The project could have been done by the Board’s own engineering staff but, in view of the fact that the successful development of such schemes would require the co-operation and involvement ultimately of consulting engineers, it was considered appropriate to obtain this co-operation now by involving them in the preliminary design and specification stage of group systems.

Building Materials Library

The Building Laboratory/Workshop of the School of Architecture at UCD is developing a ‘library’ of building materials and products so that students of...
Aramco Contract for MF Kent

Kent Instrumental Services Ltd., part of the Clonmel based M F Kent & Co multi-services contracting company, have been awarded a £ 1 million contract by Aramco (Arabian American Oil Company) in the Jubel Shedgun area of Saudi Arabia.

The contract, which is for the instrumentation commissioning of seven gas/oil separation plants, is believed to be the first major instrumentation contract undertaken by an Irish company in Saudi Arabia. The gas/oil separation plants are part of the multi-billion dollar gas gathering scheme at present being administered in Saudi Arabia.

Kent, who are represented in Saudi by Battocke-Kent, a joint venture with a local construction company, will be supplying all test equipment and technical expertise on the project.

It is expected that the initial contract, which commenced on 4 September, will last for 1½ years. There will be up to 35 Kent instrument technicians and electrical personnel from Ireland working in Saudi on the project. Consultants on the project are Fluor Arabia Ltd.

Pump Stations at Mornington

Pump Services have put into commission the second of two pump stations at the Mornington Sewage Scheme, for Meath Co Council.

The stations, which are located at Bettystown and Mornington—each have two sewerage pumps and two storm water pumps, with provision for an additional pump in each case. The initial combined capacity of the DWF pump is 480 gallons per minute, and that of the storm water pumps 3,300 gallons per minute. Phase II will ultimately double these capacities.

Pump Services have also recently put into commission a sewage pumping scheme for Navan Urban District Council in the town of Navan. Capacity here is, sewerage pumps 1,700 gallons per minute, and 5,000 gallons per minute of storm water. The stations are completely automatic, and all pumps were supplied by A B S Pumps Ltd.

On the Mornington scheme, Jennings & O'Donovan were the consulting engineers and Nicholas O'Dwyer & Partners were responsible for Navan. Civil Contractors were P J Walls and P J White.

BARLO: We wish to point out that the picture on page 31 of our last issue should not have been read in conjunction with the piece "Barlo Increase Market Share", which began on the previous page but with the text headed "Preventing Radiator Corrosion" which began on page 31. As we reported last month Barlo radiators are manufactured with extreme care, each unit going through a six stage process employing specialised cleaning and degreasing acids, prior to the application of a full anti-rust coating and immersion painting in satin-white stoved primer.

Wavin Contracts

Fittings valued at £250,000 for watermain ranging from 16" to 2" are being supplied by Wavin Pipes Ltd to the Allen Parish Group Water Supply Scheme in Kildare. The scheme will be completed by the summer of 1979. Wavin has specialised in supplying group water supply schemes since their inception, and to date has supplied over 1,850 schemes. As the schemes have grown larger so have the PVC pipe diameters used. This scheme is using 16", 10" and 8" and small diameter Wavin watermain, Dave Dunne, Allenwood, is the contractor.

The company has also secured the contract for the Spiddal Regional Water Supply Scheme for Galway County Council. Wavin will supply one mile of 12" Class 'B', 1½ miles of 10" and 4 miles of 8" watermain. With fittings and other pipes the contract is valued at £87,000. The scheme was designed by P J Tobin, Consulting Engineers, and will be carried out by the contractors John Paul.

The availability of Wavin’s light, tough, durable PVC pipes was a major factor in the development of Group Water Supply Schemes. These pipes were carried over hill and dale and were laid, initially by group members themselves, and later by contractors, in the most inaccessible of areas. Later PVC piping made laying in rocky areas considerably easier.

Briefly

COOLAIR: Coolair Ltd, which specialises in the supply and commissioning of air conditioning equipment, has been awarded major contracts by several foreign-based companies setting up in this country. Part of the Cork-based Cross Group of companies, Coolair has already been involved in many of the most prominent IDA sponsored projects in recent years. One of these is the Topps Chewing Gum plant at Ballincollig where Coolair supplied equipment for the first phase of last year. This has now been followed by their securing the contract for the second and third phases — making a total of 400 T.R. (Tons Refrigerating) of Daikin reciprocating water chilling equipment supplied to the plant.

30-Year Honeywell Exhibition

Honeywell has been marking its 30th year of continuous production in Europe with a major product capability display, entitled Tridex (i.e three decades), that will be coming to Dublin at the end of October.

The Dublin show will be staged on 25/26 October and will mark the close of a five-month road tour for Tridex which began early in May in Scotland.

The two-day customer exhibition will feature a series of presentations and discussions by Honeywell specialists in addition to extensive displays of products from the company’s industrial, commercial

https://arrow.tudublin.ie/bsn/vol/17/iss/10/1
DOI: 10.21427/D7QGSP
IHVN, September 1978
This new Purimachos product provides the complete solution to brick replacement or bulk repairs in enclosed stoves or furnaces. Applied to large cavities, it is compacted with a mallet or hammer and excess material removed with a knife. Dries overnight. Withstands temperatures up to 1400°C.

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and micro switch divisions. An introductory historical display includes a variety of instruments from the earliest days of Scottish manufacture.

Among the new products being displayed for the first time will be a Versatrak optical tracing programmer, only announced this month.

Tridex has travelled to Bathgate, West Lothian; Middlesbrough, Manchester, London, Cambridge, Birmingham, Bristol and Sheffield on its way to Dublin, plus a stop at Honeywell's own factories for a special employee show in September.

The range of instrumentation displayed is very broad, from microprocessor-based industrial control systems to tiny micro switches. It includes Honeywell's latest technology in the areas of flow and pressure transmitters, programmers, control valves, test instrumentation, micro switches and energy management controls.

Anyone is welcome to attend the Dublin show, which will be held at the Crofton Airport Hotel, Swords Road. Hours are from 10 am - 5.30 pm on 25 October, and 8.30 am - 4 pm on 26 October.

The Energy Show

The chairman of the British Gas Corporation, National Coal Board, and the United Kingdom Atomic Energy Authority and the president of the Confederation of British Industry are to address VIP visitors to the Energy Show at a series of special lunches arranged by the show's sponsors, The Institute of Fuel.

The lunches will be held at The Metropole Hotel, adjacent to the National Exhibition Centre, where equipment designed by more than 150 leading manufacturers for the efficient and economic use of energy in industrial, commercial and domestic applications will be on display.

Sir Derek Ezra, MBE, chairman of the NCB and currently chairman of the British Institute of Management, will address the lunch on Tuesday 20 February. Sir John Hill, chairman of the UKAEA, will speak on Wednesday: Sir Denis Rooke, CBE, FRIS, chairman of British Gas Corporation, on Thursday and H B Greenborough, CBE, president of the CBI, past-president of the Institute of Petroleum and deputy-chairman of Shell UK Ltd, will address the concluding Energy Show lunch on Friday.

In addition to the lunches, the Institute of Fuel is organising a conference devoted to practical, commercially available equipment and techniques for conserving energy, with strong emphasis on industrial fuel-use economies.

Information on both the special Energy Show lunches and the conference is obtainable from the show's organisers, Trident International Exhibitions Ltd, Abbey Mead House, 23a Plymouth Road, Tavistock, Devon, PL19 8AU, England, (Tel: (0822) 4671).
The next EWT + ENPOCON Exhibition will again be held at the National Exhibition Centre, Birmingham, England, from November 13-18, 1978.

In 1976, 120 exhibitors took over 4000m² of stand space and their stands were seen by over 16,000 registered visitors, many from overseas.

The 1978 events will again run concurrently with the Public Works Exhibition, each exhibition having its own area in the NEC. This means that an audience of tens of thousands will have the opportunity to visit EWT + ENPOCON exhibitors (at the last Public Works Exhibition there was an audited attendance of 73,332 influential visitors from 62 countries).

The Effluent and Water Treatment Exhibition will deal with four main categories, industrial water treatment, industrial effluent treatment and disposal, water supply and sewage treatment. All plant equipment systems, technical services and instruments associated with these categories will be included.

The ever increasing world demand for water for both domestic and industrial use means turning to non-traditional areas of supply. This requires new technology, for both the extraction and treatment of water to acceptable standards as well as its conservation.

The Control of Pollution Act in the U.K. and similar statutory rulings in other countries the discharge of effluent, again both from industrial and domestic sources, is becoming an increasing area of concern. The exhibition will cover all these important aspects of a market which can only grow in the future.

ENPOCON will cover all equipment, plant, products, services, systems and supplies associated with the fight against pollution — including pollution of land, air, sea and waterways.

Main categories will be solid-waste pollution, air pollution, noise and vibration pollution, radiation pollution and sea and waterways pollution.

Conventions will be held for both EWT and ENPOCON and these will present papers of international interest.

13–18 NOVEMBER 1978
N.E.C. BIRMINGHAM ENGLAND
PEOPLE

John McCormack has been appointed area sales manager of Celotex Ltd. Mr McCormack was previously with Bostik Ireland Ltd. Celotex roofing products are stocked and distributed in Ireland by Moy Materials Ltd, part of the Moy Group of companies.

Richard Rowse, who has recently retired as Technical Manager of Thorn Heating Ltd, has been appointed Technical Director of MARC (the Manufacturers' Association of Radiators and Convectors). Mr Rowse, who has spent the whole of his working life in domestic heating, has had considerable experience of appliance approval testing. He has been a member of many BSI Committees and was chairman of MARC for the last three years as well as representing them at meetings of EURORAD. This new appointment, which is on a part-time basis, will include responsibility for the administration of the MARC approval scheme.

Mr D J Sharkey has been appointed a director of Industrial Instruments Ltd. Don, who has been with the company for ten years, was originally employed in the sales office. Now, after a series of successful progressions through sales and technical departments, he assumes full responsibility for sales. This growing company. The Service facilities at Dublin have recently been augmented by a new service workshop in the Cork area.

The Board of BSS Ireland announce the appointment of John Brophy to the new position of Assistant General Manager. Prior to this promotion, John was Technical Sales Manager. He now assumes the responsibilities of deputy to Brendan Stack, for the management of BSS Ireland and Pulvertaft Ltd, Cork.

Parnes has joined the board of the company. He also assumes responsibility for finance and administration as Secretary of their associated companies Stirling Products Ltd, Charnwood Estates Ltd, and D P Engert & Co (NI) Ltd, Belfast. Mr Parnes, who leaves J. Lyons & Co Ltd after 30 years service, was latterly Managing Director of Royal Hibernian Hotels Ltd and Hotel Commodore S A Paris, its overseas hotel subsidiaries.

Peter Dobson has been appointed General Manager of Black & Decker (Ireland) Ltd, Power Tool Division, succeeding Paul Newson who is returning to the UK company of Black & Decker in a senior marketing position. Mr Dobson has been employed by Black & Decker for four years and brings wide experience of the company's activities to his new position. Currently he is Export Marketing Manager of the UK company and prior to this appointment he worked on marketing of the company's home user products in the UK domestic market.

Myson (Ireland) Ltd have appointed Pearse C Higgins as their Galway based representative. The company is a subsidiary of Myson Group, the public company quoted UK based manufacturer of environmental control equipment.

CIBS ANNUAL DINNER

Approximately 300 members and their guests attended the annual dinner of the CIBS at the Shelbourne Hotel recently. The turnout included many prominent members of the industry including representation from the Northern Ireland section of the Institute and of course the President from London, Laurence Hadley, who was the second visit of Mr Hadley who also officiated last year in his then capacity of Senior Vice-President.

Mr Burke, Minister of State for Industry, Commerce & Energy, delivered an address which centred mainly on the primary points contained in the Government's recently-published "Energy Report" while he also raised the subject of further appliance testing and welcomed widespread applause and cheers from the audience.

Laurence Hadley spoke about the new CIBS code of practice and the successful transfer of members to the Institute, with special reference to the IES amalgamation. He said that there were insufficient IES members in Ireland for a section of the group to be established within the Republic of Ireland Branch of the CIBS.

Tom Reynolds of the CIF concentrated on the importance of properly thermal insulation but pointed out that there was a grave need for craftsmen capable of installing such materials in the proper manner.

Seamus Homan, CIBS Chairman, also spoke, while included among the other guests at the top table were Robert Jacob, Desmond Lowry, Tom Finlay, Gordon Brickenden, Sam Andrews, Michael O'Donnell and David Kelly.
Tom Finlay, MBECA Chairman; Robert Jacob, Vice Chairman, Association of Consulting Engineers of Ireland; Ray Burke, Minister of State for Industry, Commerce & Energy; Tim O'Brien, IEE and David Kelly, Vice Chairman, RICS Irish Branch.

Paddy Rooney; Michael McDonagh; John Doyle and Gordon Taylor.

Eoin Kenny, Vice Chairman, CIBS; Tom Reynolds, Managing Director, CIF; and Seamus Homan, CIBS Chairman.

Des Lowry, Treasurer, N I CIBS Branch; Ray Burke, Minister of State for Industry, Commerce & Energy; Raymond Davis, Secretary, N I CIBS Branch; and Paddy Clonan, Secretary, CIBS Republic of Ireland Branch.

Laurie Hadley, CIBS President (London); Ray Burke, Minister of State for Industry, Commerce & Energy; Seamus Homan, CIBS, Republic of Ireland Branch Chairman; and Sam Andrews, Chairman of the N I Region of the CIBS.

Joe Murphy and Frank Buckley.

Don Byrne, Lecturer, Bolton Street College of Technology with Kevin M J Dillon and Dr John D Barry, Principal, College of Technology.
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**Sampling of Gases**

The growing importance of gas analysis of samples drawn from oil-filled electrical equipment has led to the preparation by BSI of BS 5574 Guide for the sampling of gases and of oil from oil-filled electrical equipment and for the analysis of free and dissolved gases. Identical in content with IEC 567 it deals with the methods for sampling and analysis of gases dissolved in oil from equipment such as power and instrument transformers and oil-filled cables.

The methods described in the main part of the guide are suitable for all samples and take into account the problems imposed by the transport of samples by unpressurised air freight, and where differences in temperature exist between the plant and the examining laboratory.

Appendices give alternative methods of sampling and describe alternative methods applicable for the preparation of oil samples for the analysis of their dissolved gases, and for the analysis itself.

BS 5574, price £5.60, may be obtained from BSI Sales Department, 101 Pentonville Road, London N1 9ND.

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**Inspection Neglect**

A new, four-page illustrated information leaflet, outlining the company's repair and maintenance services, is now available from Film Cooling Towers (1925) Ltd. The newly-published leaflet shows the appalling results of inspection neglect. The wisdom of requesting inspection is graphically portrayed in the new leaflet by nine photographs taken inside water cooling towers illustrating the sort of major faults which can develop if regular, professional inspection is either forgotten or just neglected.

To obtain copies of the new leaflet entitled "Cooling Tower Repair and Maintenance", write to Film Cooling Towers (1925) Ltd, Chancery House, Parkshot, Richmond, Surrey TW9 2RH.

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Literature from 'Delglo'

A new four page leaflet detailing its 'Delglo' gas fired tank fed combination boiler has been published by Worcester Engineering Co Ltd.

The leaflet details the principles and advantages of the combination boiler, and illustrates the three variants available — standard, deluxe and 'estate' versions.

Also included are details of a typical 'Delglo' installation and comprehensive dimensional information.

Copies of the new leaflet are available from Worcester Engineering Co Ltd., Diglis, Worcester WR5 3DG.

Water Treatment for Land Boilers

A great deal of water has passed through boiler systems since BSI first published BS 2486 Treatment of water for land boilers. Now this important standard has been extensively revised to reflect nearly a quarter-of-a-century of technological progress that has brought about major advances in design and improved methods of water treatment.

Safety and economy is the predominant theme of this revision, which is intended primarily for engineers and operators of industrial steam-generating plant. Steam is used by many branches of industry, notably those involved in the manufacture of chemicals, steel, rubber, paper, textiles, food, mining, and in the military and space industry.

The standard concludes with a series of appendices which explain such technicalities as pH value, acidity and alkalinity, alkaline and non-alkaline hardness etc. There are, in addition, equations representing softening reactions (including many of the numerous capabilities of ion exchange resins); formulas for calculating lime and soda dosages; and a discussion of the chemical reactions of the common inorganic coagulents and a comprehensive glossary. An equally important aid to clarification is the set of 24 diagrams which have been introduced to illustrate various features of the recommendations.

Copies of BS 2486 may be obtained from BSI Sales Department, 101 Pentonville Road, London N1 9ND. Price £7.80.
**NEW PRODUCTS**

## CN Heat Regenerator from Curwen and Newbery

Curwen and Newbery Limited, of Westbury, Wiltshire, who manufacture a wide range of heat recovery products, can now supply a packaged working model CN heat regenerator, which can be used for instructional purposes.

The illustration shows the working model which is fitted with a 10" diameter rotor and electrical heater battery to provide a simulated heat source and two fans, one operating to provide exhaust and the other fresh air make-up for heat recovery. A gear drive motor drives the rotor at the required speed.

The unit is portable and can easily be carried in the back of a car. It demonstrates the effectiveness of air to air heat recovery and the very high efficiency of the CN Heat Regenerator, and also provides an invaluable tool to the lecturer, energy conservation engineer and tutor. It has already been supplied to Government departments, universities and industry - both in the UK and abroad. Over 30 units have been supplied to date.

The demonstration CN heat regenerator is provided suitable for 230-240v, single phase, 50-cycle, AC supply, but other voltages can be supplied to special order.

Full details are available from R. S. White Ltd, The Crescent, Donnybrook, Dublin 4. Tel: 693144.

## Thorsman Pipe Trunking

Thorsman & Co Ltd announce the introduction of a completely new pipe trunking system to the Irish market. Coded TRL56, the new system, is specifically designed for 15mm diameter pipes. Accessories comprise a jointing/junction piece and stop-end to allow ease of installation.

Thorsman are the only UK company producing a range of pipe trunking systems specially designed for the plumbing and heating trade. Other Thorsman systems are TML for microbore pipes and TRL76 for heating pipes up to 22 mm diameter and cold water pipes up to 28 mm.

All Thorsman trunking systems are strong, durable and clean white in colour. They are quite unobtrusive when installed but can be painted or papered over if required. Covers can be removed easily by the maintenance engineer but are safe from the attentions of young children.

## Vent-Axia 150 Domestic Ventilation Unit

Vent-Axia Ltd has introduced a new ventilation unit designed specifically for domestic use. Called the Vent-Axia 150, it is a single speed extract model.

With an impeller diameter of 6" (150MM), this window unit is finished in white with black trim. Simultaneous operation of both the fan, and its integral shutter is by simple pull cords.

Designed to Vent-Axia's traditional standards of quality and reliability, the 150 combines ease of installation with simplicity of operation and cleaning.

Vent-Axia has over 40 years of experience in ventilation technology and invented the world's first electrically operated window ventilation unit. The first model made in 1936, is now exhibited at the London Science Museum.

Now with its comprehensive range of ventilation units and accessories, Vent-Axia can provide ventilation systems for all types of premises.

Further information is available from Vent-Axia Division, Armstrong Autoparts (Ireland) Ltd, Camac Close, Emmet Road, Inchicore, Dublin 8, (Tel: 781700). Telex 30830 ASAP.
NEW PRODUCTS

Jenway Digital Thermostats

Jenway Ltd. have introduced a new addition to their 8000 Series of digital thermometers, designated the Model 8007, this new hand-held battery-powered precision instrument combines reliable and convenient temperature measurement within the range -30°C to +130°C with the unique facility of direct differential temperature measurement ±10°C. It is thus ideally suited to the measurement of ambient, surface and flue temperature. The Model 8007 is calibrated for use with NiCr/NiAl thermocouples, in compliance with B.S. 4937.

The Model 8007 incorporates a unique linearization module which interfaces the instrument’s temperature sensor with a single monolithic clip providing the digital drive to four LED displays. The use of solid state circuit techniques in its design ensures that the maximum life is obtained from the instrument’s HP7 batteries, and offers the added advantage of increased reliability and durability.

The Model 8007 is supplied complete with a naked bead probe of 1 metre length which may be used for liquid and air temperature measurements up to 350°C, and which offers a response time of 3.0 sec. to temperature changes of 200°C. For differential temperature measurement, the instrument is supplied with two Type 116 probes of 2 metres length each, which are designed to be clipped to water pipes, radiators, etc., by means of a simple spring clip.

Optional accessories include a battery charger and Type AA rechargeable cells, MN1500 cells offering up to 100 hrs. intermittent use, carrying case with convenient stowage for probes, surface temperature probe, flue temperature probe, and extension cable orderable in increments of 10 metres, to permit remote use of Type 116 pipe probes.

Further information is available from Manotherm Ltd, 4 Walkinstown Road, Dublin 12. Tel: 504025, or Electramed Ireland Ltd, 143 Phibsboro Road, Dublin 7, Tel: 308922.

Right: A new Gapmeter Type GP with uPVC end connections and metering elements has been introduced by Matlon Flow Control and is available from Manotherms.

NEW RANGE OF LUXURY INSET KITCHEN SINKS.

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Faculty of Agriculture Building, University College Dublin

The Faculty of Agriculture Building in Belfield Campus provides undergraduate, post-graduate and research facilities for the entire faculty, incorporating a diversity of disciplines from chemistry, botany, zoology, to plant pathology, animal husbandry and animal breeding. The engineering brief set out the extensive environmental requirements for both human occupation and usage, and for small animal experimental and research work. The animal environment, due to the sophisticated and extensive research programmes in animal genetics and related subjects, necessitated close control of temperature and humidity levels; in many instances more rigorous in requirements than the human one.

**COMPLEX**

The Faculty Buildings incorporate a five storey block in which the laboratory, teaching and administrative facilities are housed, together with lecture theatres, library, museum and display areas. The animal house is a single storey development, adjoining to and linked with the main building.

The mechanical services requirements are extensive and complex, the extent of services including low pressure heating, mechanical supply and extract ventilation, air conditioning, refrigeration, water services, gas services, compressed air and vacuum services, deionised water services, fume cupboard ventilation, chemical wastes, rainwater and waste disposal services.

Additional to the design problems imposed by the complexity of services to a considerable number of laboratories, the brief also demanded considerable flexibility within the services distribution systems, allied to the essential requirement of accessibility to all services for ease of maintenance. Considerable discussion and co-ordination between the design team was essential as the form, shape and constructional details of the building evolved. Services distribution was achieved by means of four vertical ducts, with horizontal ring ducts, in general following the routes of the central corridors, linked directly to the vertical service ducts.

Plant rooms are located at roof level, over the vertical ducts and at the lower ground floor level. All plant rooms are interconnected through the horizontal and vertical distribution duct systems.

**FENESTRATION**

The building shape and room distribution is such that laboratory areas are located on the perimeter of the building where natural lighting and ventilation are possible, the attendant back-up facilities and specialist research areas located within the central core. Cross ventilation by natural means was not possible in the major laboratory areas and all laboratories are mechanically ventilated. In depth co-ordination with the Architect during the preliminary design stages resulted in the building fenestration incorporating horizontal shading bars, minimising solar gains.

A study of the requirements of the specialist areas within the central core was carried out, and due account taken, not only of the specific room usage, but also of the periods of occupancy, and the study established...
that the environment required could, in the majority of cases, be achieved by high rates of mechanical ventilation, without the necessity for costly air conditioning. Each of the internal spaces are fully ventilated, individually controlled.

A major lecture theatre is located within the central core of the building, and air conditioning of the theatre was considered to be non-essential. A detailed examination of the environment required established that the conditions could be achieved by mechanical ventilation.

LOCATION PROBLEMS

All ventilation plant is housed in the roof level plant rooms, particular attention being paid to the relative locations of air inlets and exhausts, the problem being compounded by the essential co-ordination and location of extensive fume cupboard exhausts and with air cooling facilities.

Heating services for the Faculty Building are supplied from the high temperature hot water heating system serving the entire campus from the central boiler plant. Water to water heat exchangers are located in the lower ground floor plant room, the HTHW mains being carried in a walk-in duct, linking the plant room area and the main campus distribution duct, feeding all the University buildings. Heating is achieved by steel panel radiators, located under sills, the building being divided into a number of independent and separately controlled zones, determined by orientation and by occupancy factors.

As an essential element within the faculty requirements, extensive low temperature and constant temperature rooms are provided at varying and dispersed parts of the building. The initial design proposal incorporated a central plant with pumped refrigerant circulation. As the final room locations were confirmed and the temperature and load requirements determined, a detailed economic study was carried out and after due consideration of initial cost, running and maintenance costs, it was decided to provide individual condensing units for each of the twelve low and constant temperature rooms. This decision was reinforced by the extensive and varying range of temperatures required within the rooms and by the scattered distribution of the rooms throughout the building. A further series of controlled environmental rooms, each independently controlled and serviced, are proposed for the lower ground floor level.

FUME EXTRACTS

A comprehensive fume cupboard extract ventilation system has been installed. To comply with the brief requirements, each of the fume cupboards, which total in excess of seventy units, is complete with its own independent exhaust system and fan; the exhaust fans being located in the roof level plant rooms, and the P.V.C. ductwork carried in the horizontal and vertical services ducts. Centralised plant for compressed air and for vacuum services have been located within the lower level plant room. Gas services are extended from the mains serving the entire campus buildings. The provision of central plant and distribution for de-ionised water and comparable services, was investigated but on cost factors and further influenced by maintenance factors was abandoned in favour of the installation of packaged units at the load or demand centres.

WATER SERVICES

Water services for the faculty building are connected to the central and very imposing water tower, together with the provision of roof level water storage tanks. Hot water is generated in a water to water storage calorifier, with high temperature water as the primary medium.

Fire fighting facilities include dry riser installations and first aid hose reels, supplemented by means of hand extinguishers in laboratory areas.

Animal breeding and experimental work is carried out in the single storey Animal House, located beside the Main Faculty Building and linked with it. The rigidly controlled conditions of temperature and humidity entailed considerable research and investigation into the need of a variety of small animals. All animal rooms are fully ventilated, each area being separately and independently controlled by means of room thermostats, regulating low pressure...
hot water reheat batteries with three port diverting valves. Controls in the Animal House and in the main building are pneumatically operated. Considerable attention to air distribution, in particular in the small animal areas, was necessary to ensure uniform air flow and the elimination of draughts.

Full access to the services distribution systems has been provided throughout for ease of maintenance and more critically to facilitate absolute cleanliness. Exhaust air from the Animal House is carried to the adjoining main building and carried to discharge to atmosphere above roof level.

**STAND-BY POWER**

The *rigid* specification for constant temperature control on a continuous basis throughout the year, necessitated the provision of a separate boiler plant for the animal house. This also acts as a stand-by to the main central boiler plant. Additional stand-by facilities for electrical power were also incorporated to provide for the continuous availability of the heat generating plant.

A central incinerator for the Faculty has been located in the lower level plant room, accessible to the Main Building and to the Animal House, the incinerator being designed to dispose of animal tissue and organs as well as waste products from the Animal House and the Research and Teaching Laboratories.

The Building is due for completion and occupation within a few months time and will go one step further towards the centralisation of all the faculties of University College on the imposing Belfield Campus.
A chance meeting with a friend who was urgently looking for domestic warm air-heating equipment was the start of a partnership between Sean Keegan and Declan Murphy that eventually led them to forming their own company, Tro-Flow Ltd, in September 1973.

Although they had been boyhood friends and both had served their time as apprentices to the sheet metal industry, they had been “mickey mousing along” according to Sean doing “nixers” after work in a garage in Inchicore. “We had some machinery”, says Sean, “and when we had finished the contract for this friend we decided to see if their was a further market for more work. Fortunately there was and so we both took the plunge and happily we are where we are today.

“Business really took off for us and eventually we had to look around for new premises. We moved to Ballyboughall where we acquired a 6000 sq ft factory in mid 1974 and increased our labour force to ten,” Sean explains.

In the early days the company concentrated on the domestic warm air-heating side of the business but gradually realised that the real business was in the industrial sector. “We found out very quickly that this was our field”, says Sean, “and we progressed by leaps and bounds. Another factor at the time was the general slump in housing development and the need for us to diversify. Consequently, we dropped the domestic side of the business and today we are solely concerned with the industrial sector which is producing ducting for controlled heating systems.

As a growing company with increased orders and extra staff, Sean and Declan decided that they needed bigger premises and so they moved again, this time into the city at the Chapelizod Garden Industrial Estate where they acquired a modern and spacious factory of over 10,000 sq ft. “There were three factors taken into consideration for choosing Chapelizod”, Sean says. “Firstly there was the extra space; secondly, the convenience of the locality, it has roads to North, South, East and West; and thirdly, and probably the most important factor, that there was a skilled labour pool in the area which was not available in Ballyboughal”.

The move to Chapelizod was in February of this year and a quick walk around the factory tells you that both Sean and Declan have come a long way from the days when they owned the “mickey mouse machinery” they had in Inchicore. Today the factory has all the most up to date sophisticated machinery available on the market such as guillotines, folders, rolling presses, lock-
farmers, welding equipment and work-benches.

Tru-Flow have no specialised market as Sean explains “It's a general market really — we supply our product to the textile markets, department stores, office blocks, cigarette factories etc. Some of our recent contracts for instance have included Fieldcrest Mills, Kilkenny, and Burlington Industries, Tullamore.”

Business in the air conditioning market has apparently picked up, especially over the past six months, and Tru-Flow has benefited. While there are no specific trends in the industry Sean points out however that a major factor for the growth of the industry has been the influence of American and Continental companies insisting on air conditioning being installed at the outset of the construction of a new building or factory. “Irish companies are following suit, particularly those involved with the Industrial Development authority,” Sean adds.

The price of raw materials for a business such as Tru-Flow’s has increased by a staggering 24% since the beginning of July, which Sean attributes to an EEC leveling off of prices. “This naturally increases costs all round”, he says. “Raw materials have to be imported and, while the steel stockholders have no choice in the matter, neither have we and unfortunately we, like anybody else in the business, have to pass this burden on to our customers.”

Yet, while business is booming it is also competitive. Sean says that contracts are won not just by the cheapest tender but by a company’s standards and performance. “Service is what the customer, usually in our case the mechanical engineer, is looking for. They are not overworried about the price as long as they are getting the quality and the service. Service is very important in completing the contract on time.”

Business in the air conditioning market has apparently picked up, especially over the past six months, and Tru-Flow has benefited.

Understanding the need for service, quality and standards was again one of the reasons for the move to Chapelizod. Sean makes the point, as he did earlier, that there was a skilled labour pool in the area, although he is quick to point out that skilled sheetmetal workers themselves are at a premium in the industry. Part of the problem he says is the undue emphasis placed on the gaining of technical knowledge during the apprentice period rather than the gaining of practical experience. “Skill in a trade is something that you either have it or you don’t. I would rather see a better balance of skill and knowledge and a working ability.”

Tru-Flow do most of their business through mechanical engineers and liaise closely with consultant engineers. “On all our projects we appoint a site supervisor and complaints in our type of work are a rarity although, if something did go wrong, then naturally we would rectify it” Sean says.

Sean and Declan, while being partners, share the major responsibilities of the day to day running of the company. Sean as Managing Director looks after sales and financial controls, while Declan as the Contracts/Technical Director looks after contracts and is also responsible for on-site inspections and quality control.

With a staff of just over 40, the most modern of equipment, a spacious factory and a willingness to chase after contracts big or small, Sean and Declan can look back over the past few years as a story of rags to riches and pay a big thank you to the chances meeting with the friend who accidentally put them on the road to forming Tru-Flow. Its a long way from the “mickey mouse” days indeed.
As a boy Gordon Brickenden, Chairman of the Institute of Domestic Heating Engineers, had as his sole ambition a desire to engineer and manufacture things for himself. After a formal education in Dublin where he was born and reared, he went to Rugby in England to serve his apprenticeship with English Electrical Ltd. He saw this apprenticeship as a step towards establishing his own business and thus becoming a manufacturer in the engineering field.

On completing his apprenticeship he came back to Ireland and did indeed set up his own company, manufacturing agricultural machinery. Through time he diversified into fabrication and eventually, to the manufacture of heating plant, boilers, industrial heaters etc. However, in 1971 his company was taken over by Irish Central Heating & Manufacturing Ltd, and ever since he has been practising as an independent consulting engineer.

When talking to Gordon one quickly becomes aware of his total commitment to energy efficiency and it is no surprise to discover that, as well as having designed mechanical and electrical services for many of the country’s hotels and industries, he has also been responsible for similar designs in many of the local authority swimming pools.

It was his involvement in the domestic heating aspect of the industry that first brought him into contact with the Institute of Domestic Heating Engineers. "I saw it then", he explains, "as a forum for people interested in domestic engineering and I felt that it had something to offer to me and that I in return had something to offer it. In joining I hoped to see a group of people with common interests where improvements and progress could be discussed, where standards would be given priority, that is standards in the trade, standards in workmanship and standards from every point of view. I also hoped that classes would be introduced for people like fitters and indeed for everyone involved in the trade, from the storeman even to the consultant".

Membership of the IDHE at present stands at approximately 130. These are drawn on a 50/50 basis from heating contractors on the one hand and heating merchants, consultants and fuel interests on the other. "Anyone can become a member, including people who have no direct link with the trade, provided he can pass our qualification examination", Gordon says. "There is at present an evening course run at Bolton Street which is designed to prepare people to qualify for full membership and we are stressing great emphasis on the students to join us. To this end we will be meeting the students at the college to tell them of our aims".

There are various forms of membership for the IDHE ranging from the Honorary member, to Fellows, ordinary members, associate members, companions, associates, graduates and student membership. All
members, as an indication of the status of the Institute, are entitled to use an abbreviation after their names. For example, an Honorary member would be entitled to Hon. IDHE. Meetings are held at monthly intervals except for July and August.

Gordon admits that he feels the IDHE has kept too low a profile with the result that many people are unaware of their existence. “We have confined ourselves too much to the domestic heating side in the past and I think we have to look outwards because there are other aspects involved that we should be looking at, such as the environmental aspect” he says.

Because of this low profile, affiliations with other interested groups have not taken place. But Gordon, in his role as chairman, hopes to remedy that situation “I believe that I am speaking for everyone when I say that we do want to improve our image and be seen as a group with something to contribute to our society. I can’t really anticipate at this moment whom we shall be meeting because there are in fact several groups, such as the CIBS for instance, who have publicly stated that they want to meet us. Other groups will probably be the IIRS, An Foras Forbartha and the Solar Energy Society of Ireland.

Like many other industries today the IDHE suffers adverse publicity from what Gordon describes as the “cowboys” in the trade. “These are unscrupulous people,” he says, “who are installing equipment without regard to any safety standards. There is a lot of shabby work going on by these untrained people”. Surprisingly however, he admits that there are no set standards for the industry in Ireland and suggests that this could be a contributing factor to the problem. “At the moment we have to go by foreign standards and there is no criteria for asserting the workmanship of any installation.

Nevertheless, Gordon is quick to counter that reputable companies should welcome the introduction of standards because they have to face unfair competition from the “cowboys” and explains that if the required standards were introduced it would see the end of shabby workmanship.

Registration of plumbing and heating contractors is one of the immediate objectives of the IDHE and arising out of registration Gordon is confident that the general public could be warned about employing anyone but a registered member and that this in turn would guarantee for the public a higher standard of workmanship and safety.

Still on the question of standards Gordon admits his disappointment that a sub-committee set up a few years ago with the IIRS failed to produce any positive results. While not wishing to apportion any blame for this failure to one group or the other, he intends that the IDHE will again tackle the problem this coming winter. “We will tackle the issue with a fresh approach” he adds.

Lobbying of Government departments is another area where Gordon admits that the IDHE has fallen down. “We do have a lot to offer the various departments,” he says. “They haven’t realised this of course, probably due in no small way to our former low profile”.

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Published by ARROW @TU Dublin, 1978
Lecture Programmes—Why Not Rationalise?

With the coming of autumn, the various institutes and professional bodies start to announce their winter programmes and to many this commences a period of frustration.

It appears that the policy of these organisations is to run a lecture every month interspersed with social functions such as dinners, dances, ladies nights etc., in addition to which, the odd seminar or conference is added to the programme.

On the other hand, let us consider the memberships of institutes such as, mechanical engineers, electrical engineers, fuel, building services, domestic heating engineers, marine and production engineers. It is a fact that many people have affiliations with at least two of these bodies and to attend even part of their programme regularly, places a strain on their available time, relative to other pursuits and commitments.

In addition, the supply of lecturers and subject matter to meet such a demand year after year is, to say the least, becoming extremely difficult.

The combination of two fine going facts is that with few exceptions most institutes are finishing with poorly attended lectures and with equally poor lecturers and even these are only being attended by a small number of enthusiasts. In fact even some committee members fail to turn up.

This state of affairs also affects the casual member, who may decide to attend a particular meeting, but when he does and sees the poor attendance he rapidly loses interest in future events.

The committees of the various organisations could give thought to the fact that in most areas they are all calling upon the same small nucleus of people and while they may each have a large membership the actual persons who take an active part in their institute are only a small percentage of the whole.

Various methods have been attempted to increase attendances and stimulate membership interest, such as lunch time meetings, meetings in hotels, meetings in universities, meetings with drinks, without drinks, with meals and without. Yet nobody can say that they have found a successful formula, which actually holds.

When one makes a criticism one must also be prepared to offer an antidote, even if only to stimulate some thinking from which maybe an even better idea may emerge.

The suggestion that is offered is to introduce a programme of meetings by which each body is rationed to so many meetings each winter. It is suggested that each month should be allocated to a number of institutes, which would mean that in each month there would be a maximum of, shall we say, three lectures.

To avoid any body getting what may be called a preferential month, lots could be drawn each year or they could alternate each year. This would mean that each institute would produce no more than about three lectures a year and this in itself would help to clear what is an overcrowded calender.

Social events present a problem, as most bodies are jealous of their annual dinner or presidential visit and so, it is thought that if these are often the only source of income of a body, they must be left alone. But again the number of social occasions in a winter could be limited to three.

Acceptance of this type of programme would mean that with three lectures and three social type events, an institute would still have a monthly programme during winter but taken over the whole spectrum of the institutes it would materially reduce the calender programme.

I believe that if a system such as outlined was adopted, those people with mixed affiliations could, if they so wanted, attend and support more than one institute, better lectures would be presented and it is thought that better attendances could result.

A final plea on this subject is for more joint meetings, again another attempt to increase attendances and allow people of different technical or commercial persuasions to come together and understand each others problems. Study of institute programmes often indicates the same subject matter being discussed by various bodies in the one year. This has been proved, particularly in the last couple of years, when so many bodies have climbed on the "Energy" bandwagon.

Overall there is a problem, and talking to the various honorary secretaries, all institutes are facing the same problem, maybe these ideas may help to solve them.
BATHROOMS FOR LIVING IN

Bathrooms need no longer be cold, colourless rooms offering little more than convenience. Here, the newly-formed Irish Bathroom Manufacturers Association outline their member’s products and then designer Judy Neligan reviews the ranges of overseas manufacturers.

The worst approach to a bathroom is to regard it as just another utility like a laundry room. Until recently this was a common mistake with kitchens, but now modern kitchens are regaining the “lived-in” look and there is no reason why bathroom design should not follow a similar pattern.

The Americans, always fond of euphemisms, refer to bathrooms as restrooms and, when you think about it, it is not such a bad term in summing up what a bathroom should be. There is probably no good reason why you should be comfortable in a bathroom but there is also no reason why you have to be uncomfortable.

Needless to say a large family plus one bathroom is a recipe for daily conflicts. When space or expense rules out a second bathroom or lavatory then, in some cases, it may be possible to divide the existing bathroom area making a separate room for WC and wash-hand basin. However, a bathroom or shower room ensuite is more practical than many people think.

Arranging the components of a bathroom needs lots of common sense plus a measure of imagination. One text suggests starting with the siting of the WC and continues: “A quaint but apt rule of thumb for deciding the position of the WC in the bathroom is: while sitting on it can you read the Daily Express?”

Armitage Shanks of Arklow manufacture WC’s, basins and pedestals to fit any bathroom design, be it in the economy, standard or luxury category. The bath of course, is what it is all about, the best being one with a relatively flat bottom and lots of leg room.

RCC Engineering in Bailieborough manufacture enamelled cast iron baths in numerous designs, plus a range of cast iron hip baths and shower trays. Another tray manufacturer is Midland International, again in Bailieborough, who produce plastic moulded units.

It is amazing how little thought some people give to taps and shower mixers. There is no need for these plumbing items to stand out like a sore thumb. Irish taps, made by Sanbra Fyffe Ltd, come in a large variety of shapes and sizes.

Midland also take care of storage problems which may be caused by insufficient space for large cupboards. Plastic moulded bathbars, medicine cabinets and splashbacks can come to the rescue here. They are light and can be installed by almost anybody.

Besides holding knickknacks they also brighten up what might otherwise be a dull room.

Showers whether as cubicles or en suite with the bath are synonymous with shower curtains and a good shower rail is often ignored. The shower rail should be easy to operate and install and also provide good strength (how many people grab at the curtain if they slip in the shower?). Silent Gliss of Cork manufacture a full range of anodised aluminium shower rails in both silver and gold finishes.

Colour is important in the bathroom. All Guaranteed Irish bathroom components are available in matching styles and colours, even when coming from different manufacturers.

Celmac of Wicklow produce a wide range of different WC seats and covers.
Simple, Safe, Elegant, Economic, Reliable, Controllable, Solid Pedigree
Just add water

Designed for elegance and safety for those installations where the saving of water and fuel has become essential. Particular emphasis is given towards minimum maintenance and maximum reliability with features to eliminate vandalism wherever possible.

The solid pedigree of 180 years skill and success are incorporated into this range of mixing valves and taps for elegant bathrooms, industrial or institutional ablutions—wherever sophisticated water economy is desired.

Literature and full specifications from:

**Meynell**

Meynell Valves Limited. Bushbury, Wolverhampton WV10 9LB. Tel: 0902-28621

Distributors/Stockists:

N. Ireland: Ballentine & Partners (Mechanical Products) Limited, 62 The Mount, Mountpottinger, Belfast BT5 4ND.
different shades. These products are available in colours that will match or contrast with any suite shade.

For the ultimate in comfort and style, no bathroom is complete without the luxury of a carpet. Peerless Rug (Europe) Ltd produce a range of carpets and bathroom sets which will enhance any bathroom. These Peerless products are all machine washable and will take spill and splashes in their stride — a must for any hygiene conscious housewife.

The architect should have no problem designing a first class, modern bathroom around the products of these seven manufacturers. The Irish Bathroom Manufacturers Association welcomes the opportunity to convince architects, designers and consumers that bathrooms, large and small, plain and sophisticated, can be assembled entirely from Irish sources.

The first move to form the IBMA was made by the marketing of Midland Industries, which had developed a range of moulded bathroom fittings under the Flair brand. Although the range was enjoying an overall success with the bulk of production exported, Louis Cahill of Midland was anxious to see greater penetration of a relatively sluggish home market. His sounding showed that other bathroom manufacturers held similar aspirations.

A contribution from each manufacturer plus funding by the Irish Goods Council under the Guaranteed Irish programme soon got the ball rolling for a TV campaign aimed at alerting the public to the range of bathroom products available from home sources.

Backing the TV campaign is a trade magazine campaign aimed at builders, retailers and specifiers plus mail shots to retailers and hardware stores who were approached to put together a completely Irish manufactured bathroom in their showrooms.

The catalyst for the showroom concept was an exhibition at the Irish Goods Council’s HQ in Sandymount where three bathroom displays ranging from the luxurious to the economy were assembled.

Centre piece of the luxury setting was a sunken coloured bath from RCC Engineering — surrounded by plush carpeting developed for bathroom use by Peerless Rugs. At the other end of the scale an economy bathroom showed that a hip-bath meant that the smaller bathroom did not need to be cramped.

All seven IBMA manufacturers are looking to a market worth over £1 million in retail terms. New housing, although it represents just half the market, is still highly significant in growth terms but with the boom years over and housing settled down to a more subdued rate of growth it is renovations and the share of the market currently held by imported components that the IBMA members are chasing.

Designer Judy Neligan of Stephenson Associates takes a critical look at the wide range of overseas bathroom products available on the Irish market.

While it is highly satisfactory to see more bathroom items now being made in Ireland, the market must be relatively small and therefore (unless we have big export plans) the available range will remain small. This means we will always be exposed to the great variety of competitive imports, a brief survey of which follows.

For years architects have been looking enviously at superb sanitaryware in Italian magazines, in deep unusual colours and with streamlined taps and fittings. These were totally unobtainable in the British Isles, due mainly to the much stricter water regulations here to which Continental models could not be made to conform. Our imports...
were British, and limited by conservative British taste: traditional designs in white and four pastel shades.

This picture has been changing, at first slowly and now more dramatically. In the first place, British manufacturers are producing bigger ranges, in better shapes and in more colours. Ideal-Standard, being an international company, was the first to bring in Italian-inspired shapes with the "Michelangelo" suite, but other manufacturers had also become much more adventurous with colour and form. Tile manufacturers have also caught on, and it is now possible, for instance with Pilkington's and Ideal-Standard, to have wall and floor tiles exactly matching the colour of the ware.

In the second place, the water regulations are tending to be relaxed, and may indeed have to change under new EEC legislation — which would be a pity. At the same time some Continental manufacturers have been adapting to stricter standards anyway. This means that the market will soon be open to a flood of Continental as well as British goods.

Let us look at the current situation in more detail.

**BATHS:** It is a pity that our own contribution in this field is limited to the very beautiful, but expensive and unwieldy, enamelled cast-iron, when there is so much imported competition in other materials. However, other countries are finding cast-iron more and more difficult to produce — it is a "dirty" occupation — but there are installations where nothing else will do, so we may eventually have a world market.

Acrylic baths are top sellers at present. The method of manufacture makes production cheaper per unit mould, so that a great variety of shapes, sizes and details is available, within a price range of £50 to £70 for a standard size. However, orgy-size tubs with incorporated seats, shower units and other refinements are now appearing at the top end of the market. Acrylic baths are lightweight and easy to install, warm to touch, and available in all sorts of colours, but can be slippery and should always have a textured floor and/or grip handles. The material is vulnerable to scratches, and not really suitable for heavy use as in hotels.

Pressed steel enamelled baths are the main alternative, being both lighter and cheaper than cast iron, but slightly more vulnerable to damage of the enamel during installation. The price range is from £35 to £65.

**SHOWERS:** Shower trays in acrylic can cost as little as £30, freelay and china from £50 to £80, and for the shower fitting itself you could pay up to £80 for a fully thermostatically controlled unit. However, the market is still fairly small and the choice is limited. A separate wall-mounted one — instead of the integral spray or rim supply, although this in fact makes them less hygienic in use. A bidet can cost up to £90.

**BASINS:** The range in these must be the widest of all. Acrylic now has a firm place, although a basin gets harder wear than a bath and is more likely to get scratched by abrasive cleaning materials. Because basins are relatively small, the weight difference is not so important, and so vitreous china remains the most usual material.

**TAPS AND ACCESSORIES:** For years it could be categorically stated that the only good-looking modern fittings were Italian, and of course they were not available here. Then came the "Vola" range from Denmark, designed by Arne Jacobsen and eventually imported here by David King. Its price put it beyond most people's reach, but it has a beautiful style and is particularly successful in the chromed version. The enamelled finish, though in good colours, chips quite badly.

The French fittings now about to be launched on an astonished Irish public include many that could only be described as an interior designer's delight. Rose-patterned china, lumps of solid onyx, gold-plated dolphins, swans and cherubs, all beloved of oil magnates from Texas to Abu Dhabi. "Different" they certainly are.

As far as accessories are concerned we are still fairly limited, but mention should be made of the well-organised "Module 50" system in aluminium, imported by Warshaws, and one of the "Crayonne" range in plastics, consisting of mirrors, hooks, soap-dishes, paper holders, etc., in good colours. They are made by Airfix and marketed here by Stock.

**DESIGN:** In the British ranges, shapes and designs are improving all the time. The sheer practicality of smooth forms without awkward recesses or rims have become apparent, especially in washbasins where even overflows are on the way out.

Colour choices are also increasing. Armadale Shanks are to bring out a new range of 12 colours soon; Shires and Ideal-Standard already have some very good colours, and others are not far behind.

Surprises are in store, too, in the wide range of French ware which has just been introduced for the first time by P J Matthews. Huge double bath tubs, circular, oval, corner-fitting, or sunken, are a feature, and unusual colour shadings — sometimes three-tone or even "tortoiseshell" — which are possible because of the acrylic manufacturing process. Some suites are really streamlined, almost space-age; some, in line with current Victorian nostalgia, are in porcelain with flowered patterns and shell-shaped bowls.

There is a rumour now that the Adamsez ware, which was selected for display
For Better Bathrooms

Sole manufacturers in Ireland of Vitreous China Plumbing Ware

The Avoca self-rimming type vanity basin for use in cabinet or counter top in vitreous china. Available with two tapholes at 200 mm centres. Size 515 x 455 mm (20¾ x 18 in). Designed exclusively for the Irish market and manufactured at Arklow. Colours:—Group 1, 2 and white (Autumn, Sepia).

The Moray shower-tray 760 x 760 mm (30 x 30 in) in LUXWARE—the new material with a superior surface finish with slip-resistant base. No overflow and has 1½ in unslotted strainer waste. Weighs about half the weight of conventional fireclay shower-trays. Colours:—white, sky blue, turquoise, autumn, avocado, pampas, sun king.
In this day of "save it" campaigns and large fuel bills, more and more people are realising that economy begins at home but, to save money you have to know where it's being wasted. Every time you wash your hands or take a bath for instance you probably waste an enormous amount of water. For this reason Heatrae developed the Carousel 6 shower unit and the Carousel 3 handwashing unit.

Unlike most other showers, the Carousel has a separate temperature control so you get the right shower temperature every time without any fuss. Installation is simple with connection directly to the mains supply resulting in instant hot water the moment it is required. Carousel 6 is approved by the Electricity Council and the National Water Council and is supplied with a 12 month...
OMEGA PLASTICS proudly announce the OSM 100D. A quality Shower Cubicle, competitively priced to meet the demands of your customers.

Now read the specification of the super OSM 100D as illustrated:-

* Factory fitted split doors
* Heavy-duty satin anodised aluminium frame.
* Translucent smoke-tint side panels, shatter resistant.
* Moulded back panel to give additional strength and incorporating integrally moulded soap dish.
* High quality recessed mixer valve — High quality shower fittings.
* Deep shower tray with easy clean non-slip base.
* Easy to assemble.
* Available in matching sanitary ware colours including Bali Brown, Harvest, and Sorrento Blue.

In addition to the Omega Luxury Shower Cubicles Omega manufacture a range of quality bathroom products comprising of Shower Trays, Bath Cabinets, Splashbacks, Vanity Bars, Mirrors and Bath Panels — all in matching Sanitary Ware. Colours available for the first time in the Republic of Ireland from their Sole Distributors:—

K. M. Reynolds Limited, 13, Bath Avenue, Sandymount, Dublin 4. Phone 685079. Full details on request.

The sign of a quality product
SANITARY WARE

which also comprises a basin/pedestal, WC suite, plus a bidet. However, the units all link together to present a most attractive integrated modern design.

The new Harmony colour range bath is claimed to be the first range in Europe to offer matching bathroom suites in multi-tone variations of basic colours. This has been achieved by advanced acrylic bath technology for which Shires Ireland hold exclusivity in this country. Made in eye-catching Harmony Brown and Harmony Green, these baths are in fully reinforced acrylic, thus providing a bath more durable than ever an 8 mm acrylic bath. The

Chloride Shires at Barbarella’s

At a press reception staged in Barbarella’s Night Club recently Chloride Shires Ireland Ltd introduced several new products—a new bathroom suite together with two new colours.

The new Shires Allegro bath features a specially designed wide circular shower area; an anti-slip base and stylishly designed cast grips which are recessed on ample soap shelves. Built in 8 mm construction, with dimensions of 1700 mm x 800 mm, the Allegro bath is only one piece in the suite

Koralle Units from Reynolds

K M Reynolds Ltd have been appointed sole distributors for ONI Metalworks’ range of Koralle shower enclosures.

This range of corner showers “Sliding doors”, panels and folding screens are all manufactured from high gloss anodised aluminium frames with ice crystal screens with gold and smoked glass as an optional extra. Some features of Koralle are:

The rounded-off treading surface wards off any risk of injury to the foot. All the surfaces are angled towards the interior of the shower tray so that the shower water drains into the tray with a self-cleaning cascade effect;

The sliding elements interlock with the cascade profile. Hence no water can leak out. Plastic sleeves in the guiding channels prevent metal from rubbing on metal;

Rubber buffers dampen the sound of the sliding doors. Even all the cut and drilled edges are anodised and thus protected against subsequent discolouring (as result of oxidation);

The specially reinforced top profile does not sag even on extreme width enclosures. Nor does it allow a sliding panel to rub on the cascade profile and thus jam.

There are corner protectors on the top and bottom profiles which are both for safety and, being seam free, ensure water tightness. A Koralle corner model of the corner shower is likely to be one of the most popular judging by sales of this model in the UK and on the continent. Koralle products are all of high quality and yet are claimed to be competitively priced.

Further information is available from K M Reynolds Ltd, Bath Avenue, Dublin 14, (Tel: 685079).
Ideal-Standard's Michelangelo range brings a delectable new sculptured quality to bathroom furniture. The Michelangelo range was created for Ideal-Standard by leading Italian designer, Paolo Tilche. It shows the same flair the Italians have given to sculpture, fast cars and fashionable furniture.

The range includes three sizes of wash basin and floor standing and wall mounted loos and bidets. There is a choice of fashion colours

... Bali Brown, Harvest, Sorrento Blue, Moss Green, Penthouse Red and Penthouse Blue and White.

Agents in Republic of Ireland

K. M. REYNOLDS LTD.
13 Bath Avenue
Dublin 4 Ireland
Tel: 685079
Telex: 4782
Harmony colours are available in only Chloride Shires luxury products, such as the new Allegro plus the well-established Symphony and the Eros circular bath.

To ensure as far as possible a perfect match, the UK manufacturer has now designed a complete selection of fittings, which include taps and shower fittings, plus a luxury WC seat (Dansk Pressalit) – all of which are now available in a unique green and brown finish which tones in exactly with the Harmony colour hues.

A new shower bath called Soho, designed for the smaller bathroom which can also serve as a shower room together with two new baths Arena and Melody completes the range of products now available from Chloride Shires Ireland Ltd, Newtown Industrial Estate, Coolock, Dublin 5, (Tel: 471514).

**Introducing Meynell Magitap**

An electronic washbasin tap, to be known as Meynell Magitap and operated by a magic eye, is an entirely new type of washbasin tap introduced by Meynell Valves Ltd.

Magitap heralds a technical breakthrough in the design and function of washbasin taps and is another step forward in further endeavours by Meynell Valves to provide economic water control in a sophisticated method which is also difficult to vandalise. It has been designed for water and fuel economy.

The operation of Magitap is simple. It operates from a preset adjustable temperature by the user placing a hand under the nose of the tap so that a hidden beam is broken and, as soon as this happens, the water flows. When the hand is removed, the water ceases.

The unit is designed for standard washbasin practice and has a ready use in homes, hospitals, prisons, schools, hotels and also has many obvious applications in such places as motorway service stations or public washrooms at municipal swimming pools, etc.

Meynell Valves has also introduced an entirely new type of spray tap called “Push-tap”, for the specific purpose of water economy because it will operate for seven seconds after the user has released it and then it has an automatic shut-off.

Constant research by a specially selected design team has indicated that, although most spring loaded basin taps are operated by pressing down the top of the tap, there is an annoyance to the user because the tap will shut-off almost immediately the tap is released and this prevents both hands being washed together with the normal rubbing action.

The Meynell Push Tap incorporates a special delay action which lasts approximately seven seconds so that once pushed it can be released and still allow the user a pleasant and leisurely wash for seven seconds. This can be repeated again as often as the user requires, while, at the same time, an obvious economy will be achieved by the spring loaded shut-off which will prevent

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**Saflo Performance Taps**

Saflo represents an exciting breakthrough in tap design and construction by Sanbra Fyffe, the heart of which lies in a rubber diaphragm and its associated components. As well as sealing off the entire headwork it combines the function of a normal tap washer.

The result of this is that “O” rings and their often tricky replacement are eliminated as are the conventional glands and their periodic adjustment. Therefore, Saflo taps are very easy to maintain.

Saflo taps, light and positive in action, are manufactured to comply with the new exacting BS5412 which replaces the old BS 1010. The new BS5412 lays down stringent mechanical and hydraulic performance requirements and Saflo comply with these in every respect.

Guaranteed Irish made, Saflo taps are available from Sanbra Fyffe Ltd, Conex Works, Santry Avenue, Dublin 9, (Tel: 379291). Telex 5325.
Sanbra Fyffe's Irlin range of taps and mixers, has a distinct Continental flair and is capable of enhancing the appearance of the trendiest of modern bathroom fixtures.

Apart from the Irlin, Sanbra Fyffe also have available the Deltaflow Silver Spa range of luxury fittings which are capable of satisfying the most exacting requirements. The range is complemented by Morado and Onyx fittings which are claimed to be the ultimate in sheer luxury and are available in gleaming chromium or gold plated finishes.

The versatile Topliss Shower fitting is well known as one of the most economical units from a price point of view yet containing the special feature of a large mixing area. Topliss has a 360 degree turning circle and the blending of the water takes place over most of the movement.

Conex instantor compression fittings are said to be the market leader and offer the most comprehensive range available. The unique compression qualities make the fitting suitable for copper, stainless steel and plastic tubes. There are special vented fittings available for central heating installations.

Sanbra Fyffe are also stockists/distributors of Wade Couplings and can offer fittings for metric and imperial tubes from stock.

Further information is available from Sanbra Fyffe Ltd, Conex Works, Santry Avenue, Dublin 9, (Tel: 379291).

Sanbra Fyffe Meet All Requirements

Sanbra Fyffe Plastics Ltd announce the appointment of K M Reynolds Ltd as sole distributors in the Republic of Ireland for their range of quality bathroom products. The range comprises shower cubicles with door or with curtains, shower trays, bath panels and bath bars, bathroom cabinets and splashbacks and attractively designed mirrors. There is a choice of 16 colours across the range including Bali Brown, Harvest and the latest fashion colour Sorrento Blue.

Some features of these new shower cubicles include...
SANITARY WARE

Cubicles are the factory fitted split doors which pivot to open approximately 3/4 width of the door, therefore not protruding into the room. The frame is a satin anodised, heavy duty aluminium. The shower fitting is a recessed mixer valve and not mixer taps. The mixer will operate on a pressure of 3'. The side panels are of shatter resistant smoke tint sheet giving a good light transmission.

The shower tray itself is manufactured from high impact polystyrene supported by high density polyurethane foam. The depth of the tray is 4 7/8" and features a non-slip design. This is an exceptionally strong shower tray and is competitively priced.

Further information is available from K M Reynolds, 13 Bath Avenue, Dublin 14, (Tel: 685079).

Armitage Shanks Unveil New Designs

During a reception held recently in the Montrose Hotel, Dublin, which was attended by over 100 building suppliers' representatives, Armitage Shanks launched a number of new designs and colours for the sanitary ware market. Under the title “Here today, here tomorrow”, guests were introduced to three new pastel colours - Caspian, a greeny blue; Sable, a warm grey; and Pompadour, an exciting warm pink.

These colours will be available in the Kensington suite from January 1979 with the super luxury Vermount bath (1900 x 1000 mm); the Hawaii corner bath and the Sheraton 2 (1700 x 800 mm).

Other items on show included the new Luxaware one-piece Valancia vanity top on the new range of flat back boxes and the new Arklow self-rimming vanity basin which was displayed in Sepia for the first time.

Also revealed were new developments in horizontal outlet closets which meet the required British Standard (a feature which will be applicable to all Armitage Shanks suites by June next year) This offers many advantages, the most important being reduced stockholding and demand flexibility since it does away with the need to stock P/S or turn trap pans.

Details were also announced of the new super luxury Mayfair suite which will be available early next year.

Further information is available from Armitage Shanks (Ir!) Ltd, South Quay, Arklow, Co Wicklow, (Tel: 0402 2415).
Now that we've taken inches off them, oil-fired boilers never looked better.

Meet the new generation of Thorn oil boilers—the new P55/65 and the new P70/90. They're small in size. But really big on performance. The P55/65 is only 300mm (approx. 11¾”) wide and the P70/90 450mm (approx. 17½”) wide. They're the most compact oil boilers of their output on the market, indeed smaller than many gas boilers of the same output. You don't have to see the pump on these models either. Available in kit form, it disappears neatly into the boiler casing if you want it fitted inside. Installation couldn't be simpler. And there's one more thing that's noticeable by its absence—noise. Decibel rating on the P55/65 and P70/90 is really low. These new boilers are fully automatic pressure jet units. They can be fitted with a programmer and in the event of overheating, a built-in safety device shuts down the burner. Maintenance? A quick and easy job, annually.

Together the two boilers cover the output range 55,000 - 90,000 Btu/h (19.05kW - 26.3kW).
Clyde and Ferroli have united to bring you the newest and most efficient boilers on the European market... ranging from 80,000 - 800,000 Btu's/hr... cast iron sectional boilers... competitively priced... covered by a 3 year guarantee... free commissioning by a nationwide service organisation... and a guaranteed combustion efficiency of 80% — very important with the present cost of oil.