

OTIS MAGAZINE



NEW YEAR 1978
OTIS ELEVATOR COMPANY LIMITED

NEW YEAR 1978

In these early days of 1978 we offer especial good wishes to everyone and the strong hope of a happy and prosperous New Year.

For most family men, we must admit, the Christmas just past was very much like Colin Reid's on page 23. But we still enjoyed it. For Gordon Riddle, our man in Singapore, who writes about his life in the Pacific, Christmas means blue skies and a temperature of over 80°F. Perhaps he spared a thought for our cold weather.

Looking forward to the Spring, Joy Hayward brings the Otis girl a fashion forecast and Peter Warwick explains the whys and wherefores of camping and caravanning.

Also in this issue the spotlight turns on Otis' Brighton branch, Bruce Martin writes about standardisation and prefabrication in the construction industry and Alec Thorogood explains the mysteries of life-cycle costing. Plus much more and all the news from Otis.

SUCCESS STORY

The picture on our front cover is of an Otis escalator in Todds of Limerick, a major department store in the west of Ireland. Todds is owned by the Switzer group of companies (House of Fraser).

In September 1976 Otis completed installation of four 44UB escalators serving ground to second floors. What happened afterwards is indicative of the value of escalators to department store operators.

Colin Bennett, managing director of Switzer, tells us:

"Immediately the traffic flow through the store improved beyond belief."

In fact, in the period September 1976 to the end of July 1977 there was a 45 per cent growth of trade in linens

and furniture in the department located on the second floor.

The new hairdressing salon on this floor went 100 per cent over budget turnover and throughout the second floor

a 27 per cent overall growth in trade has been recorded.

Total upper floor trading showed a growth of 40 per cent.

The management of Todds, and the Switzer group,

have no doubts about the value of escalators to their operation.

LET US HEAR

What do you do in your spare time? Perhaps you customise your car and go street cruising? Or sit up all night swapping technical talk with ham radio fans? Or go pot holing? Or any one of a thousand fascinating leisure activities.

Otis Magazine would like to hear from you. And

so would the readers. Because there are most likely other

enthusiasts in the company with similar interests. Contact

Barry Wheeler at Clapham Road and tell us all about it.

contents

1978 and Beyond by Norman Cunningham	3
---	---

Getting away from it all by Peter Warwick	4
--	---

Standardisation and prefabrication in the construction industry by Bruce Martin	6
---	---

Feminine and fragile by Joy Hayward	8
--	---

How long should a lift last? by Alec Thorogood	10
---	----

Spotlight on Brighton by John Watts	11
--	----

Meet our customers: Legal and General by P. W. Michell	12
--	----

Otis' Ace in the Hole by Guy de Viaris and Rodney R. Adler	14
--	----

Our man in Singapore by Gordon Riddle	16
--	----

Brighter future is ahead by Rupert Morris	17
--	----

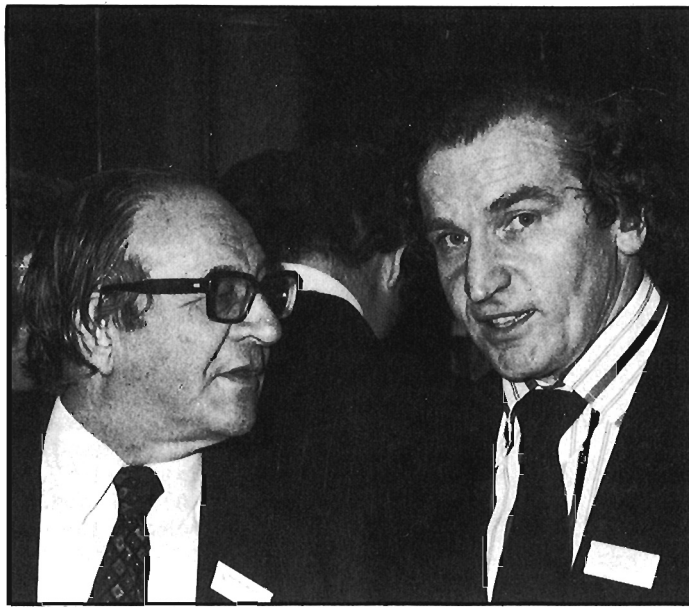
Otis News: Liverpool	18
----------------------	----

Otis News	20
-----------	----

Product page: CM lift and 'Passenger Lift Planning Guide'	21
---	----

Otis News: London	22
-------------------	----

Remember Christmas? by Colin Reid	23
--------------------------------------	----



Norman Cunningham (right) with Fred Mulley, Minister of Defence

1978 AND BEYOND

by NORMAN CUNNINGHAM

I am delighted once again to have the opportunity of sending my best wishes for a happy New Year to all Otis employees throughout the United Kingdom and Eire and to thank all management, staff and hourly paid employees for their continued efforts during our last financial year which finished in September.

1977 has been an extremely busy year for everyone, not without its problems, and we were disappointed that, on a turnover for 1977 of £42,914,000, profits before tax were lower than the previous year at £2,908,000. Although this is the first time since the loss days of 1970/71 that we have failed to better our previous year's profit, I am totally confident that the tremendous team spirit prevailing within the company, together with a mixture of new and improved products, cost reduction and improvement of delivery performance, will give us an opportunity of working together to re-establish ourselves on the upwards trend in profit.

In certain quarters, profit is considered a dirty word but, as you know, I have often stressed the need and the importance of profits to any company. Without adequate profits, there is no money to spend on research, new product development, new equipment and expansion of the company's activities within our industry.

What about 1978?

On the national scene, the Government are working extremely hard to reduce inflation and there are signs, if there is not a wage explosion, of their being successful. All of us must help to achieve that success. The cash flow, due to North Sea oil, will be a major influence in our lives over the next twenty years. The income from North

Sea oil will help to reduce our borrowings from the world which, at the moment, total £14,000,000,000. By 1980, we could be repaying this at the rate of £2,000,000,000 or £3,000,000,000 per year. This would be a major success in re-establishing Great Britain as a world leader but, and it is a very big but, if we cannot get our manufacturing industries right and have to end up continuing to pay major subsidies to companies that seem to be failing, such as British Steel, Leyland, etc., then we will not be in a position to repay our debt and the pound will weaken substantially again.

What is even worse, though, is that, unless we can bring down our cost of production, then our exports will not be competitive. Irrespective of North Sea oil, we still live or die by the value of our exports. If we do not get the orders for these, then North Sea oil money will not be enough to see us through. Some of the North Sea oil money will undoubtedly be used to put some new life into British industry and each of us has to play a part *now* in increasing productivity. This is a very difficult thing to do when there are layoffs from redundancies throughout the industry but it is essential for the country that we do so.

We must collectively seek ways to increase productivity and remain competitive in a hotly contested market. We must seek to comply with Government requirements on wage structure and, in the long term, ensure the future prosperity of fellow Otis employees.

I would welcome your help on this. Working together, we can get through the present downturn in the economy and in our order book, and ensure a happier New Year for all of us.

Getting away from it all

Peter Warwick suggests a tent or a caravan for next summer's holiday. You can try it first by hiring



Right: Motor caravans in all shapes and sizes.

Below: Camping right by the Mediterranean in the South of France.

Opposite: Towing with touring caravans like these is easier than you would think

Freedom to do as you please when you please. Economical family holidays plus the availability of accommodation for short breaks at short notice. A home-from-home always with you wherever you go and the secure knowledge that you always have a comfortable bed for the night. A healthy, outdoor life. These are the sort of reasons given for people going caravanning or camping.

This all sounds like blatant propaganda for an activity in

which I declare a vested interest. It's my living. But what about the other side of the coin? The cold, wet nights with the canvas of the tent dripping. The caravan swaying down the road. The hard work of living with facilities far below the standard of home.

The truth about caravanning and camping is somewhere between the two extremes. It's not all blue skies, perfect pitches and happiness. But neither is it a make-do, poor man's sub-



stitute for a 'proper' holiday. Millions—tens of millions—of people throughout Europe take their holidays under canvas or in a caravan because they want to, not because they can't afford anything else.

As a matter of fact, to go caravanning or camping can cost a great deal of money. A family-size tent costs, for a decent one, at least £200 and basic equipment at least half as much again. And it's easy to spend very much more. Costs start to escalate, if *Otis Magazine* will forgive the phrase, when you move from canvas to aluminium, with £1500 a fairly modest price for a medium-size caravan.

The attraction is, of course, that once the initial investment has been made, holidays and weekends away for years to come cost very little. Catering for yourself, food costs are no more than at home, so in addition there are no more than petrol and site fees—plus whatever you care to spend to enjoy yourself.

It takes a lot of holidays to make the cost of a £1500 caravan worthwhile, but the combined effects of strong demand for secondhand caravans and inflation, which is always pushing up the prices of new vans, means you can be pretty certain of getting most of your money back after a few years.

One difficulty of talking about caravanning and camping is that the terms cover a very wide variety of activities using an equally wide variety of equipment. At one extreme are the backpackers, who set off on foot carrying all their needs. And because they are carrying it, they naturally keep their kit to a minimum and think carefully about every ounce. At the other end of the scale are huge American motorhomes with V8 engines and built-in generators to power the air conditioning.

Most families, however, use a frame tent, a trailer caravan or a motor caravan. The sort of tents that have one or two poles with the canvas held out by guy lines are now really used only where small size and light weight are important. Camping with a car, frame tents are almost universal.

With a framework of linked metal poles and the canvas pegged down all round, they provide a lot of

space—12 ft square is a fair average—and standing headroom. Big clear windows let in plenty of light and for sleeping there are one or two inner tents with built-in groundsheets.

Camp beds or air mattresses, tables and chairs, shelved kitchen units with integral cookers, all help to make life comfortable but, together with the tent, pose a considerable packing problem, and all the weight has to be carried by the car.

One answer to this problem is the trailer tent, a small, low trailer which causes few towing problems and is well within the capacity of most family cars. On site a tent unit opens from the trailer, doubling or trebling its area. As a rule the main beds consist of mattresses in the trailer body, with the ground level



area as living space.

Though a trailer tent offers off-the-ground beds, in most of them it's still canvas that has to keep out the weather. And they have to be towed. Within limits, the size of a trailer has little effect on the ease—or difficulty—of towing, so not surprisingly conventional aluminium caravans are vastly more popular than foldaway trailers, the main advantage of which is the low height which improves rearward visibility and reduces wind resistance.

Everyone knows what a caravan looks like. They are those big white boxes which always seem to be at the head of every traffic queue. It's this towing aspect which, in my experience, is what puts most people off the idea of trying a holiday in a caravan. The interiors, with their dinettes which convert to beds, their neat kitchens and handy wardrobes usually meet with approval. No problem living in there. But towing?

Like most things, towing is far easier than it looks, provided the car and caravan are properly matched to start with. You don't have to have a big, powerful car to tow a

caravan—but it helps.

Matching is the name of the game. The law is of some help here as, to conform with requirements of the 50 mph towing speed limit regulations, the laden caravan must not weigh more than the car—to be precise the maximum gross weight of the van should not exceed the kerbweight of the car. Both weight figures are quoted by the respective manufacturers. In fact, for best towing performance, it's usually best to keep the weight of the van within 75 or 80 per cent of the car.

So your car should be heavier than the van. But if you don't want to be a mobile traffic block and run out of steam on hills, engine power is important. There's no ready rule of thumb, but it's simple commonsense that the bigger the engine the better it will be for towing. So where you have the choice, go for extra cubic centimetres every time. Think carefully before trying to tow with anything much under 1600 cc—plenty of people tow with far smaller-engined cars, but the weight of the van needs to be kept as low as possible.



Fitting out the car with the towing bracket and lighting equipment costs around £50 or £60 for most cars, though do the job yourself and you might save almost half this. You'll also need exterior mirrors on both sides of the car.

On the road, just drive normally, but more smoothly, leaving a little extra space to allow for the width of the van and taking corners a little wider. Other than this, there are no special techniques except for reversing.

Here, practice makes perfect. Find a large, open space and concentrate on steering the van, rather than the car. It's not easy at first, but most people get the knack.

The dislike of towing is one of the reasons for the popularity of motor caravans—commercial vans with

either a pop-up roof to give standing headroom or a specially-built body, the latter having more space and generally more luxurious features. Completely self-contained, motor caravans have all the facilities for living, eating and sleeping (though unlike towed vans, not usually a toilet room) literally a few steps away from the driver's seat.

Motor caravans often seem the most attractive proposition to newcomers, but their dual-purpose interiors require rather more organisation than in trailer vans, and they are expensive. Very few cost under £4000.

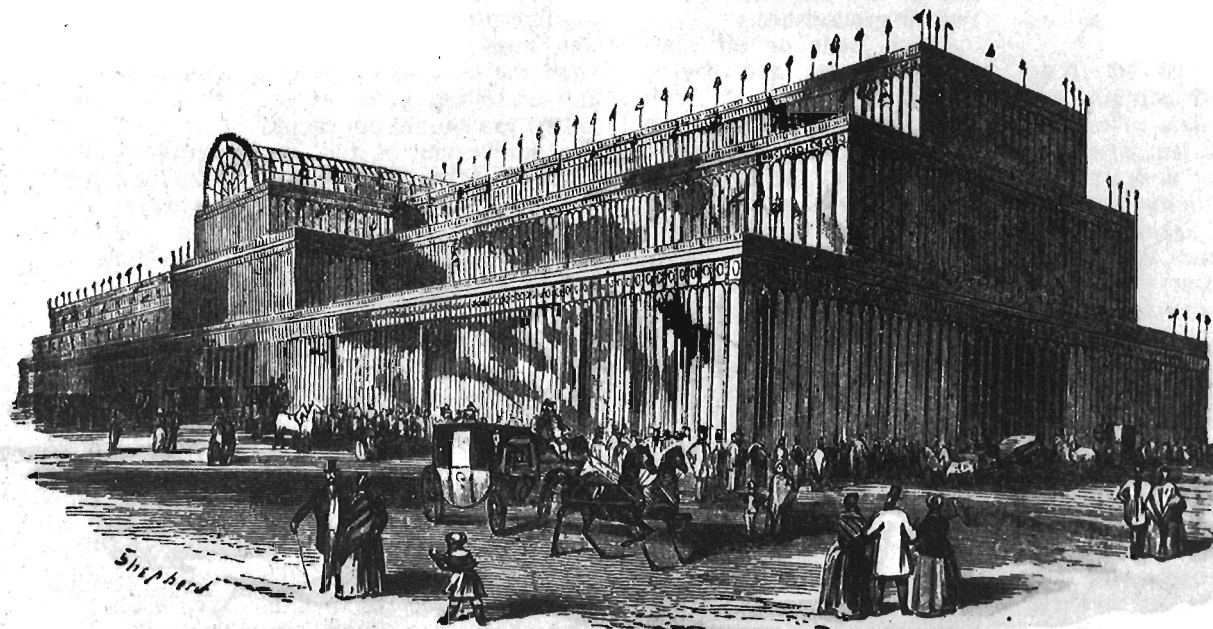
A good way of trying out caravanning or camping is to hire. Generalisations about cost are not easy as, in such a seasonal market, there are wide variations in prices according to the time of year. But for a family of four, a tent and equipment costs around £20 to £30 a week to hire, a trailer caravan £30 and a motor caravan nearer £100—or more in peak periods.

It's no good, of course, being all kitted out with nowhere to go. You may well have read stories in the newspapers about a shortage of caravan and camping sites. It's true that in popular holiday areas at peak periods it can be difficult to find a vacant pitch, but in general there are plenty of sites to go round.

The big caravan and camping clubs run their own sites—including secluded 'certificated locations' on farms where you'll have no more than a couple of other families for company. But you don't have to be a member of a club. There are several sites guides available which give details of thousands of commercially run sites in Britain, or abroad if you want to get away from these shores.

If you are the sort of person whose idea of a holiday is to live more luxuriously than at home, with someone else to do the cooking and make the beds, then the whole idea is a non-starter. If, however, you are prepared to accept the facts of self-catering life, there are few better ways of getting top value for your holiday money. This summer, next summer and many more to come.

● *Peter Warwick is editor of 'Modern Caravanning'.*



THE GREAT NATIONAL EXHIBITION.

The right kind of standard product

*Bruce Martin argues the case for more
standardisation and prefabrication
in the construction industry*

It takes three men three hours to put up a large marquee; say 10 man-hours. But it takes nearly 2,000 man-hours in this country to build a house having the same floor area. Obviously a marquee is not a house but the way it is made and erected illustrates the application of two important principles.

These principles, which underly much modern industrial production, also governed the construction of buildings during the great historic building booms, both in Europe and the Far East. Standardisation and prefabrication have a long history.

When you use a postage stamp, a telephone or a motor-car, you derive the benefits of articles that are standardised and prefabricated. Without the use of mass-production of components for stock before sale, our communications would become time-consuming and enormously costly.

In a similar way, there are great economic benefits in being able to construct buildings by using parts that have been made beforehand and are of an agreed quality. But you have to know exactly how you are going to

build and the way all the bits and pieces fit together to make the buildings you require. It is these systems of construction which brought about the historic styles of building and at the same time made for cheap and rapid building.

Prefabrication is nothing more than the manufacture of parts away from the building site. The parts need not be standardised, although they often are, usually to enable machinery to work more effectively and to simplify flow production.

In current building, examples of standardised parts are the traditional bricks, tiles and drainpipes, and the more recent electrical accessories, wall panels and sanitary fittings. One of the main advantages of such components is that an architect knows, before he starts designing a building, their exact nature and how they can be used. They have been tried and tested in practice and can be relied upon to perform as expected.

Another advantage of using prefabricated components with standard sizes is that they are interchangeable. At any stage in the work, a component of a

different finish, colour, or other characteristic can be used to occupy the space assigned to it in the design.

Despite the many advantages of prefabrication and standardisation, both concepts have been under attack in recent years. To live in a prefabricated house, or a 'prefab', as it has been dubbed, is definitely a criticism implying low quality and an undesirable residence. There are some good reasons for this view which, however, on examination turn out to be not a criticism of prefabrication but of its misuse.

The error is to have mistaken the parts for the whole and to have used prefabricated parts always assembled in the same way so as to make a single type house. This is both unnecessary and incorrect. Individual houses, by their nature, are better when different from one another. They occupy different sites, are occupied by different people, may be made to different sizes, and can be altered and added to in the course of time.

But an individual house, as distinct from one made to a single type design, can equally well be made of the same



Left, Crystal Palace, a fine example of prefabrication. Above, Georgian houses like this had standardised building parts

standard components and the components can, if need be, be pre-fabricated. Such was the case with the Georgian list of building parts which were used to construct every kind of building, including individual houses, terrace houses, warehouses and even churches.

We need a great collection of industrially-made parts of the highest quality which can then be assembled with ease and rapidity. We made the first prototype in this country well over a century ago: the Crystal Palace during the Industrial Revolution. It was one third of a mile long and was first built around full-grown trees in Hyde Park. We have made nothing to equal it since then. Furthermore, it was taken to pieces and put up later at Sydenham, in the same way as we take down and put up marquees.

When applied to building, standardisation of parts fixes the patterns and therefore significantly affects the appearance of the result. If we standardise and manufacture pseudo-Georgian windows, because people are said to like them, this is what we shall

see around us. If the design of such windows is then criticised on the grounds that they are standard, such criticism is false because the standard has been agreed and the standard product has been made in accordance with it.

The criticism should be directed against our taste and our sense of proportion: we are prepared to look through pseudo-Georgian windows, but we are unwilling to wear Georgian clothes and don wigs, even if they are imitation!

Standards are what we agree at any one time to abide by and standard products are what we agree to make and buy.

We buy watches, tinned peaches, stamps, telephones, cars and the like. We accept them as part of our culture and our surroundings. Why then do we, in this country, in the matter of building, revert to old-fashioned ways and means?

Perhaps it is because many of us have had only a literary and classical education. Many of us distrust mathematics, science, industry and industrial pro-

duction. These are unfamiliar and misunderstood worlds. We disagree therefore with prefabrication and standardisation, and, frightened by all suchlike things, we seek security in English literature, history and historical styles. We look backwards instead of forwards, inwards and not outwards. Inadvertently we turn back the clock, try to live in romantic past periods, and fail to welcome new things.

As a result, we pay a great deal more for our buildings than we should otherwise need to do, we pay for their upkeep, we pay for their running costs, and the vast majority of us live in houses of another age. Above all we fail entirely to derive the benefits of the beautiful houses and surroundings that are possible when modern industrial methods of production are used to manufacture their component parts. We also spend much too much time putting them together.

We need to remember the marquee, standardise well, and prefabricate.

● **Bruce Martin, MA (Cantab) AA Dip (Hons) FRIBA MSIA** is an architect and standards consultant.

Amid the present frenzy of Christmas wrapping paper and glittering decorations, can you recall the gentle colouring of a bunch of sweet peas? Should your imagination fail you, glance instead at a bowl of sugared almonds, as seen on display in many a sweet shop.

That should be your colour plan for the coming spring. It will be a season of pastels; soft pinks, blues, yellows, lilac, green and ivory—plus a dash of navy or black to sharpen things up a bit.

There are a lot of pretty cotton prints in the pipeline, too, the nicest tending to be floral ones. Watch out, as

well, for a lot of mix-and-match prints—two or three co-ordinated prints all together in one outfit.

But relax about styling. There is no revolution going on at the moment. Hemlines remain much as they were last spring (calf-length), but maybe just a fraction longer.

Spring coats, such as they are, tend to be “unstructured”, another way of saying loose, fluid and wrap-around; but their role in life has really been taken over by the showerproof coat which has developed a tremendous sense of style.

The blouson jacket still holds the scene and the same

line is around in overblouse, tunics and dresses. While some might say that this is a fiendish style for anyone save the slinky-hipped, this is not necessarily true. The blouson can be hitched up to waist level then allowed to pouch over softly, thereby covering a multitude of sins in the way of expanding waistlines and bulging mid-ribs, which become miraculously invisible.

Pleated and tiered skirts also have winning appeal for spring (often with a flash of frilly petticoats beneath). Sometimes on dresses these pleats start high on the midriff, then snatched into

the waistline with a tie-belt. Richard Nott, who designs under the Peter Barron label, does this particularly well.

Evening wear continues to be very covered up. High necks, long sleeves or poncho tops, loose caftan lines and floaty, filmy fabrics are the rule, so that you can drift around looking feminine and fragile.

It is the sort of look which should bring out all the best instincts in the man-in-your-life; it should make him feel protective. Here's hoping.

● Joy Hayward is fashion editor of 'Homes and Gardens'.

Feminine and Fragile

Joy Hayward gives the Otis girl a preview of spring styles

Black and white photos. Left, a casual, sporty look features the drawstring overblouse, zippered up the front plus massive pockets and a hood, all in 'toughie' cotton. Pia and Paula. Below, neat all-occasion simplicity comes in this dress





and jacket with contrast bodice and revers and a two-tone belt. And washable, too. Ladies' Pride. Colour photos. Top of page, the easy line in spring knitwear has a tunic top with drawstring neck and sleeves, panelled skirt, in the luxury of cashmere. Pringle. Beneath, floating, long-sleeved and a romantic floral print. That is the message for evening wear from designer Veronica at Rembrandt. Opposite, mix-and-match look for sunny days shows both fine and broad stripes, a net check and a geometric floral print, plus lace trimming, designed by John Bates at Jean Varon.

HOW LONG SHOULD A LIFT LAST?

**Alec Thorogood explains the
thinking behind life-cycle costing**

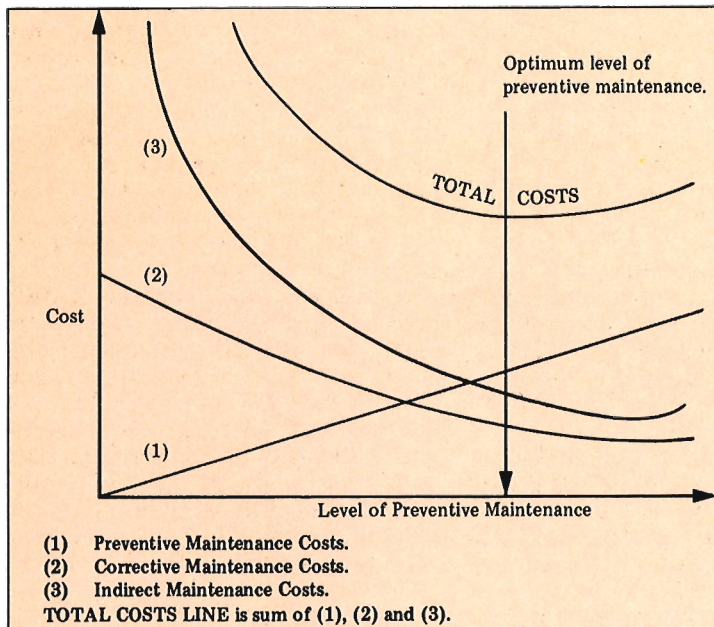
There is nothing new about life-cycle costing. It has been going on for over 25 years but is often misunderstood. Life-cycle costing involves not only an awareness of design parameters but also the factors which must be taken into account when budgeting for long-term expenditure.

It is the key to what we are doing in designing equipment at the factory. We have to decide for what purpose we are designing and try to measure the market. What does the market want?

Does it want a product that will last for ever? Does it want a product with a limited life which can be discarded eventually and replaced by something completely new? Or does it want a product that can be updated from time to time, because it has been designed initially to accommodate technical advances?

It seems inappropriate to think of lifts as a fashion product but, of course, to some extent they are. Control systems, methods of answering calls on the landings, buttons, indicators—all change with fashion and technical advancement. There is a certain analogy with the motor car.

A lift installation is a longer-lasting product than a motor car and customers do not want to change their lifts the way they change their cars. But a modern lift must have the built-in capacity to be up-dated without pulling it out entirely. It must be able to accommodate innovations, like new architectural products and finishes. We try to design our equipment that way.



Graph of non-linear relationship between preventative maintenance costs and corrective and indirect maintenance costs.

Take, for example, the quality of service provided by a group of lifts. What was satisfactory 20 years ago is not acceptable now. But now, 20 years later, when the customer asks for the service to be increased by 50 per cent, it can be done by installing a new brain and automatic doors inside the existing framework. Most of the potential life of the original installation will have been preserved.

Many customers buy lifts with a shorter life-cycle, like the simple installation which can be replaced fairly readily when

conditions require it. Otis can provide these too.

But if those customers insist on a long life-cycle lift and then, after a few years, want radical changes, they have really spent too much on their initial installation. They should have spent less in the first place, and then rethought their new requirements in the light of developments in their own business and our latest technical advances. This is all part of life-cycle costing.

Life-cycle costing must also include the cost of planned maintenance for, without it, dependability of the equipment is bound to suffer.

Likewise, if the owner's life-cycle costing policy assumes "un-planned maintenance", this too must be included in his budget because it usually turns out to be more expensive than planned maintenance in the long run.

We are currently developing a new system of planned maintenance, and I hope to tell you more in a later issue.

Sometimes, I admit, the forecasting of future requirements can be difficult. A good example is the customer owning a new office building who does not know what the vertical transportation pattern will be until all the tenants are in occupation.

A building of twelve floors can be occupied by one tenant or by twelve. For one tenant the starting and leaving times will be much the same; but with twelve tenants these hours may vary considerably. The customer would be wise to install equipment which is flexible and can be altered easily.

The whole aim is to get the best vertical transportation possible at any given time, and at the least cost, by taking advantage of advancing technology.

Going back a few years, we would link four cars, put in four attendants and give them a signal system to follow. Later, the brain was put in the motor room and we went on to operate the lifts automatically like a train service. Every 20 or 30 seconds we sent a lift away from the ground floor. A few years after that we found we could improve service by parking lifts around the buildings in the zoning method.

And so the advances go on. Room for innovations must be built these days, as far as is possible, into the basic system.

To say that something must last for ever, in the form it was first supplied, is wrong. Updating is necessary when the customer needs it and this means that life-cycle costing must go right back to the basic design stage.

We at Otis never want a customer to spend more money than he needs to. It is not our way of doing business and never has been. Life-cycle costing is a way of ensuring that the customer spends no more than is necessary for equipment which will do the job he wants at any given time.

One last thought. I believe manufacturers and customers alike have a social responsibility to make better use of base materials, particularly those where the world's resources are limited.

Today, we must show a willingness to re-construct services and facilities, at least once in every generation, to create more opportunities for the employment of manual workers, and to provide an outlet for those with special skills in designing to modern life-cycle costing parameters and industrial processes.

● *Alec Thorogood is zone service field manager at Clapham Road. He controls research, development and administration for the maintenance operation. Before his present job he was on the engineering side dealing with modernisation.*

SPOTLIGHT on Brighton



The pier, the superb pavilion and many high-class flat developments all make their contribution to life in Brighton.

Town of the Future

**John Watts,
Brighton branch
manager, reports
from this splendid
Regency resort**



George IV, as Prince of Wales, first visited the village of Brighthelmstone in 1783, when it was becoming fashionable as a resort for the new pastime of sea bathing. By the middle of the following century the railway had arrived and Victorian families continued the royal custom to enjoy the pleasures of Brighton, as it was by now called.

From these beginnings Brighton has grown into a renowned international resort. And it is still growing.

Visitors arrive in their hundreds of thousands not only for a day on the beach or to attend a conference at the newly completed Brighton Centre, but to browse among the famous Lanes, ride on the Volks Railway, steep themselves in the history of the old Brighton or admire the newer Brighton.

Otis' Brighton branch covers an area of 2,000 square miles. With the town at its centre the arc leaves the sea just south of glorious Goodwood, sweeps through historic Arundel, reaches north towards Gatwick and

then descends through Ashford to rejoin the sea at the white cliffs of Dover. Within this area we have some 800 units under maintenance.

There are 13 Otis units in the Brighton Centre, which is capable of holding 5000 delegates, and is one of the most advanced developments of its kind in Europe. At the new headquarters of American Express there is a six-car 260 group.

The Brighton area contains a formidable cross-section of Otis equipment, including the first HR hydraulic.

Our installations cover human life from the cradle to retirement. Otis units abound in hospitals, and from the simple D100 in the Dorothy Stringer comprehensive school we have helped educationists by providing vertical transportation in the Brighton Polytechnic and the University of Sussex, and not forgetting famous Roedean.

From school to work in office blocks, flats, famous hotels, stores with household names, power stations, printing works and council

offices—Otis has installations which aid everyday life.

The elderly and disabled, we are proud to say, enjoy our facilities, and these include installations in projects sponsored by both public and private enterprises—Chailey Heritage and St Dunstons, for instance.

Whether you are travelling to or from UK by land, sea or air, Otis in the area aids the trip. At Gatwick Airport, the first wide-step trav-o-lator installed in Europe moves you and your luggage more easily. The pilot station at Folkestone is Otis equipped, as are some of the boats which ply from Newhaven, Dover and Folkestone.

I am often asked which are the most important installations in our area. My answer is that they are all important. Some are clearly more imposing than others, and thus more readily seen, but that is the only difference.

I cannot mention all our staff and field crews because their names and something about them would take up

most of this space. But Frank Leonard is our construction supervisor, and Les Bennett is sales representative.

Dave Sinden is service supervisor. David McNab and Terry Dellar are our two staff field testers. And we all lean on the support we get from Anne and Elizabeth in the office. At Brighton we believe in co-operation and I, as manager, have been given it in full by everyone.

What of the future? In a growing town the Marina will soon be busy with visiting sea-faring folk from all over Europe. Volks, the first electric passenger-carrying railway in the world, now fast approaching its centenary; will need a replacement system.

But be sure that Brighton branch, both staff and field, will take time out from their various off-duty pursuits of golf, cheering on the 'Seagulls' at Brighton & Hove Albion football ground or merely lifting up the pick-up arm, to ensure the successful future growth of our area.

MEET OUR CUSTOMERS

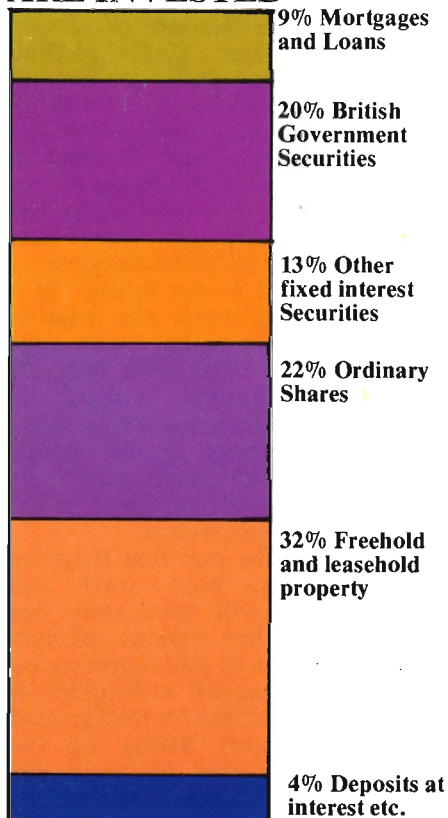
Legal & General

In terms of assets L & G is the second-biggest life assurance group in Britain. P. W. Michell of L & G traces its beginnings from 1836 and describes how its holdings in property are administered

In 1836, six members of the legal profession met at Lincoln's Inn Field to set up the Legal and General Assurance Society Ltd., with capital of £1,000,000 and share ownership restricted entirely to lawyers.

The first head office was established at 10 Chancery Lane but only two years later in June 1838 it moved to 10 Fleet Street. This was to be the home of Legal and General for more than a century. By 1929 it became apparent that there was no longer any advantage restricting share ownership to the legal profession and the share register was

WHERE THE ASSETS ARE INVESTED



TOTAL FUNDS £2,423.3m



opened to the public. By 1930 funds amounted to more than £22,000,000.

Between 1930 and 1970 Legal and General took over a number of other companies and also expanded overseas. In 1962 the head office moved to Temple Court, a new building purpose built for L & G. By the end of the 60s assets had risen to £1,000,000,000.

Legal and General now operates in 30 different countries. It has a network of 92 offices throughout the U.K., employing approximately 5,200 staff. It administers in the U.K. around 819,000 individual life assurance and annuity policies and approximately 623,000 general insurance policies, including motor etc. Company pension schemes account for about 55 per cent of premium income and cover more than 1,000,000 people either at work or in retirement, making Legal and General Europe's largest pensions firm. It is also the second largest Life Assurance Group in Britain in terms of assets which at the end of December 1976 stood at £2,400,000,000.

This sum is invested in a number of ways as the graph shows but approximately £660,000,000 is invested in property. This covers all types and ages from the small single shop unit to the multi-million pound office or shopping complex. To administer this not inconsiderable portfolio (which it is believed is one of the largest in the world) a team of Management Surveyors, Building Surveyors, and Engineers are employed in the Estates Department of the Society, at Fitzroy House in Euston Road.

It is Estates Department policy to ensure that all its properties are maintained to a high standard (commensurate with rental income) and to this end a constant review is kept to monitor not only interior and exterior decorations but also mechanical and electrical services. This could entail as little as the renewal of a light fitting, to the complete replacement of the landlord's electrical supply, central heating plant or complete lift installations.

As several readers may have met the

Estates Department Lift Engineers it may be of interest to them to know that the number of lifts which the Department is directly responsible for runs into several hundred (including some escalators) and the scope of the work covers not only maintenance but the decision as to when any particular installation should be replaced. In this latter case the Engineer will write the specification for the replacement lift, obtain tenders, place an order, supervise the site installation, witness acceptance tests and finally take the lift back into his maintenance responsibility.

Completely new developments are also undertaken and when this occurs the Society usually instructs outside Architects, Structural Engineers, Quantity Surveyors and M & E Consultants. The project management is however controlled by Estates Department staff, and it is usual for the Estates Department to act as its own Lift Consultant.

Otis carry out at present, the majority of the Society's new and replacement installations and also a large percentage of its maintenance work. Considerable emphasis is placed on quality and of course there is an obligation to shareholders and policy holders to ensure that value for money is obtained. To this end spot checks are carried out on all its installations and instructions issued to the Contractor to rectify any defect found.

A few of our latest developments, in which Otis have supplied the lifts, are Arundel Great Court (in conjunction with Capital & Counties Property Company Limited), St. Mary's Court, EC3, and Tithebarn House, Liverpool. Recent replacement installations include Neville House, Birmingham, Clarendon House, London and Dering Street, London. No doubt these, and many more names will be familiar to a number of readers.

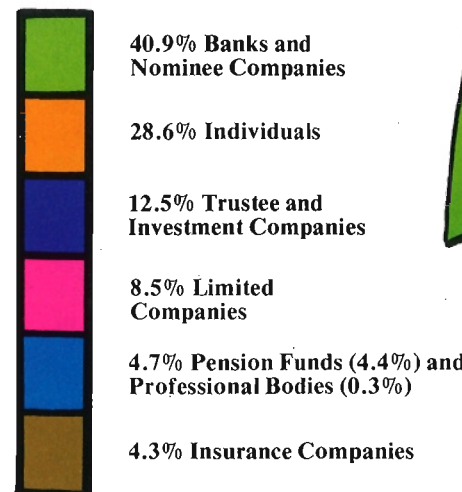
Legal and General and Otis have worked together for more than a decade now and during that time have built up a good working relationship. It is hoped that this article will go some way to explaining how the Estates Department works (and possibly why we ask for some of the things we do!).

Above: Tithebarn House, Liverpool, is almost ready for occupation. Above right: The splendours of a bygone age. Unfortunately spares for the lift were no longer available and the complete installation was replaced while the building was still occupied. The colour photograph shows the installation after replacement. The car is walnut and the doors leather-covered with gold tooling. Right: St Mary's Court, a new development in the City. Far right: Arundel Great Court, the largest new square in London for many years.



WHO OWNS LEGAL AND GENERAL?

The total issued share capital of Legal and General is £7,200,024 which is divided into 144,000,482 ordinary shares of 5p each. No significant changes in the proportions of shareholdings have occurred to the end of 1976. Although the diagram shows that the largest stake (40.9 per cent of the total number of shares) is taken up by banks and nominee companies, of the 26,222 shareholders at the end of 1976, 21,314 (81.2 per cent) are individual shareholders



To get about quickly and avoid traffic-filled streets, millions of city dwellers and commuters go underground every day. They take the subway—or Metro or Underground, as it is called in many parts of the world.

What helps make this form of rapid transit so efficient is the escalator, or moving stairs, a mode of transport pioneered more than 75 years ago by Otis. By escalator, subway travellers are carried swiftly from street to underground levels and back again. Moving large numbers of travellers quickly to and from station platforms, escalators allow more trains to be used with less headway time between them.

During the last two decades, increasing traffic congestion has made the subway an attractive solution to urban transportation problems, not only in cities in the six- to ten-million population range—such as New York and London—but also in those one-half or one-third the size. Subways are now under construction or being expanded in such cities as Paris, Rome, Helsinki, Caracas, Washington, Atlanta, and Baltimore.

Subway construction is in the long-term plans of many cities throughout the world in recognition of growing congestion, pollution, and shortage of energy. Each year construction of three to four systems is begun, with nearly double that number being expanded.

As the systems develop, the average number of escalators installed per station is gradually increasing, reflecting the growing use of subway transportation. Twenty-five years ago, the Paris Metro had only 90 escalators to service 360 stations, or one for every four stations. Now in progress is a 15-year modernisation project that will add two to three escalator units per station. Ultimately, ten times the original number of escalators will be installed. The east-west regional express line of the Paris Metro is a striking example of escalator use. When it is completed in 1980, the line will have an average of 50 escalators in each of the six main urban stations.

As cities outside the traditional population centres in America, Europe, and Japan grow, they, too, are going underground to move people about. Rio de Janeiro, Hong Kong, and Melbourne have joined the subway ranks recently by beginning construction of large-scale underground railway systems. Otis was awarded contracts totalling more than \$23 million to supply 213 escalators and 21 elevators for the new systems.

London, long the largest city in the western world, was the first to go underground to minimise urban congestion. By 1860 its streets had become so clogged with carriages and wagons that cabbies were often unable to drive passengers from one railway station in the metropolis to another in time to catch connecting trains.

Thus the underground railway was born. Steam locomotives pulled passenger cars through open cuts and short, shallow tunnels equipped with frequent vents to let the smoke escape. Stations were only one or two flights of

Otis' Ace in the Hole

**Thanks to the escalator—the moving stairs
pioneered by Otis more than 75 years ago—mass
underground transport is possible in big cities.
Guy de Viaris and Rodney R. Adler report on
the past, present and future**

Story and pictures courtesy of 'Bee Hive', the magazine of United Technologies

stairs below the street.

Shortly before 1900 two major engineering advances made it possible and practical to build and operate underground systems of the type now called subways. One was the capability to bore tubes deep beneath the ground and line them with steel and concrete. The other advance was development of a practical means of electric traction with multiple controls so a single motorman could operate an entire train.

Deep-level lines, built from the 1890s on, first in London and then in other cities, had stations several storeys below ground. By the turn of the century, Londoners reached stations far below by using early lifts, whose limited capacity resulted in long waiting times.

Enter the escalator. Otis introduced the escalator at the Paris Exposition in 1900. The new moving stairways could carry passengers between two levels continuously, comfortably, and safely.

The first to recognise its potential were department store operators, who reasoned that the escalator could expose shoppers to merchandise as they rode from floor to floor.

Rapid transit systems soon became the second major escalator market for Otis, with early installations in a New York elevated railway station and, in 1906, in a subway station.

The escalator introduced in 1900 had been invented by Charles D. Seeberger, who sold his patent to Otis. Except for a shunting method requiring passengers to step aside to get off, it looked much like its present-day descendants. The shunting system was necessary so that passengers' shoes or garments would not become caught between the moving steps and the landing platform. Later a cleat-and-comb arrangement was devised to lift the passenger's feet off the tread where it disappears into the landing. The first escalator also had flat step surfaces; today they are cleated.

Meanwhile Jesse W. Reno devised an inclined moving platform with cleated treads on the moving portion and comb-like prongs at the landings to mesh with the treads. This design eliminated exiting sideways and was much safer.

In 1911 Otis acquired the Reno patents and for 11 years produced both Reno and Seeberger models. In 1922 the best features of both were combined into the first escalator of essentially modern design.

In the years since then Otis has continued to make improvements in escalator design, particularly in the precision of construction. Many of the



Top, early escalators at Waterloo. Beneath, High Holborn station in the 1930s.

developments also have improved escalator safety, making the escalator one of mass transportation's safest systems in light of the immense number of passengers carried each day.

Continuing attention to passenger safety is a prime consideration at Otis. The importance of safety is evidenced by the fact that, in the United States alone, the 15,000 escalators in use provide more than 30 billion rides a year.

In smoothness and dependability of operation, too, the latest escalators are characterised by great advances over their predecessors. To the casual passenger, the most obvious change is in appearance.

During their early decades, most escalators had wooden sides, or balustrades, designed in keeping with the ornate architecture of the period. Modern escalators are severely functional in design. Installations in subways often have balustrades of durable yet attractive stainless steel, although elsewhere they may also be made of aluminium, architectural bronze, Formica, or even transparent structural glass.

A special breed of heavy-duty escalators has evolved to meet the exacting demands of service in underground and elevated transit stations.



Modern escalators on the London Victoria line and the Liverpool Loop and Link

These escalators carry heavy traffic and operate continuously for long periods. Especially in systems like the London Underground, each escalator must carry passengers up or down 50 feet or more so that riders need not transfer between successive flights of escalators to reach deep-level stations.

Underground or above, transit system escalators are costly to install or replace and must be built—and maintained—to stand up under severe use and possible abuse.

To carry heavy loads for great vertical distances, heavy-duty escalators have exceptionally powerful drive motors and transmission systems. In cooperation with subway system maintenance engineers, Otis engineers have continued to improve escalator design, with bearings, surface finishes, grades of lubricants, and other provisions to increase operating efficiency and dependability, extend useful life, and minimise maintenance costs.

Since 1906 when Otis began building

escalators for this special class of service, some 3,000 heavy-duty escalators carrying more than 100,000,000 passengers a day have been installed around the world, including 400 units in Russia and eastern Europe. Although other manufacturers in North America, Europe, and Japan make heavy-duty escalators, nearly 60 per cent of the world's total are manufactured by Otis.

The heaviest-duty escalators are built in the Soviet Union, where vertical rises in subways often vary between 30 and 50 metres (98 and 163 feet) compared with a maximum of 20 to 25 metres in Western subways. The Krestiatik station in the Kiev subway has the largest escalator rise in the world—65 metres, almost 214 feet.

London, with its early start, still ranks as the heaviest user of underground escalators with 274 installations. But other cities are catching up. Mexico City, in the late 1960s and early '70s, built its own, ultra-modern Metro, with a total of 120 Otis escalators. Two

exceptionally busy stations, where lines of the system intersect, have eight and 12 escalators respectively.

In the new Hong Kong Metro, scheduled for operation by 1980 and expected to become one of the world's most heavily travelled transit systems, Otis will install a total of 114 escalators and 18 elevators in 12 underground and three elevated stations.

The city the Metro will serve, on Hong Kong Island and Kowloon peninsula off the coast of China, has a population currently at 4.5 million and growing rapidly. It is one of the world's densest concentrations of people and traffic. Initially, one million passengers a day are projected to use the new transit system and its escalators and lifts.

In the United States and Canada, Otis over the years has gained a large share of the growing subway market for escalators. New York, as might be expected, has the most escalators, 151 units. They include a bank of nine escalators in the new transit terminal under the World Trade Centre, the greatest number of side-by-side units. The Chicago subway has the second greatest number of Otis escalators, 58 of them, followed by Toronto with 46 and Boston with 43.

Subway traffic in New York is as heavy as in London or Paris, and only heavy-duty escalators will stand up to the use demanded.

Interestingly, however, builders of the newest American systems—in San Francisco, Washington, and Atlanta—forecast traffic only one-fifth or one-sixth as great as in Mexico City, Rio de Janeiro, or Hong Kong in relation to the number of stations.

Two characteristics of the US cities explain this disparity: their population density is lower and many of their people cling to the private automobile and have not been brought back to public transport.

The greater number of escalators seen by the public are the standard models. They have been developed primarily for department stores, office buildings, sports centres, and a growing variety of applications with weekly operating hours only 30 to 40 per cent as long as in subways and with a shorter life expectancy.

In all kinds of buildings and other facilities around the world, an estimated total of 60,000 escalators is now in use, about 40 per cent of them installed by Otis.

In today's world markets, manufacturers achieve economy of scale through quantity production of escalators of standard design, an approach Otis pioneered beginning in the 1940s. Standardised models and efficient, straight-line production have reduced the relative cost of escalators and encouraged their growing use as an everyday convenience in places of business, recreation, and transportation.

For Otis, the large-scale, long-range plans of the world's cities for expanded and improved public transportation promise new growth for this major segment of the company's markets.

Everybody has heard of Singapore but for some reason a lot of people don't know where it is. At Otis we get letters addressed to 'Singapore, Japan' and 'Singapore, China' and 'Singapore, Hong Kong.'

As Otis people well know, it is an island at the tip of the Malay peninsular, 60 miles north of the equator, covering about 225 square miles. It is also a vast and prosperous city which is still growing rapidly.

All the year round the climate is the same. The average temperature is 82°F and every day the sun rises at 6.30 am and sinks at 6.30 pm. It is humid, too, but we all live and work in air-con-

ditioned rooms, so we come out of the cold into the warm.

At the Pacific regional office there are 12 staff men, expert in various spheres of company activity, plus a small administrative back-up. The region covers Japan zone, which looks after Korea; Australia, which includes New Guinea; New Zealand, taking in Fiji; India and Sri Lanka; Singapore zone, taking in Malaysia with an office in Kuala Lumpur, and also Thailand; and last, but certainly not least, Hong Kong zone, which looks after the Philippines and Taiwan and with an agent in Indonesia.

Put that altogether and you have the

Otis Pacific Region. It is one-third of the world's surface. It also has two factories in Japan, factories in Australia and India and an assembly plant and small manufacturing capacity in New Zealand.

Over the region as a whole we probably service as many elevators as there are in the UK. And it is a sobering thought that Singapore, together with Kuala Lumpur on the Malay mainland, has more high-speed gearless Otis 155 HT lifts than there are in London.

Dealing with so many different countries and cultures we made mistakes in the past, through misunderstandings, but we soon learned. A big lesson we learned is that in Hong Kong and Japan, for instance, everything has to be de-luxe. The product must be sophisticated and smooth or it will not sell.

Land is so expensive in Hong Kong that they will pull down a fairly new 20-storey building to make room for one of 25-storeys. The place must have more lifts to the square mile than almost any other city. They want the latest of everything and went overboard about our touch buttons, door detectors and electronics.

In the Pacific Region we are up against particularly strong Japanese competition and must answer it with quality, delivered on time, and correct all the time.

Doing business in Japan, by the way, has its problems. The Japanese 'yes' does not necessarily mean 'yes, I agree'. It can also mean 'I think I understood what you said' or 'I may do what you suggest' or 'I'll think about it.'

About 40 per cent of my time is spent travelling, and at airports and meetings, never mind in bars, I am always running into people who will be remembered by Otis colleagues in the UK.

Dennis Warlun joined Otis in 1946, eventually emigrated to Australia, and is now an executive with our biggest Australian competitor. He is a commercial thorn in our side but we are still good friends. His father, Tom, worked for Otis—I believe in the Kent area—until his retirement.

Brian Smithers, at one time a service supervisor in London, did a foreign tour then emigrated to New Zealand, and is now a service representative in Wellington.

Bob Little retired from the company as London sales manager and started a consultancy in Australia. Following a serious operation he has had to give this up, but has made a good recovery.

Colleagues at Clapham Road will remember our Singapore general manager, B. K. Wong, who trained in London in the sixties and is a Cambridge University graduate; and our Philippines manager, Jun Soriano, who also trained in London.

I am writing this on home leave in the UK but by the time it is in print I will be back in Singapore. It is a long way from a British winter.

● Gordon Riddle joined Otis in 1948 from Acton Technical College in west London. He went to Singapore in July 1975.

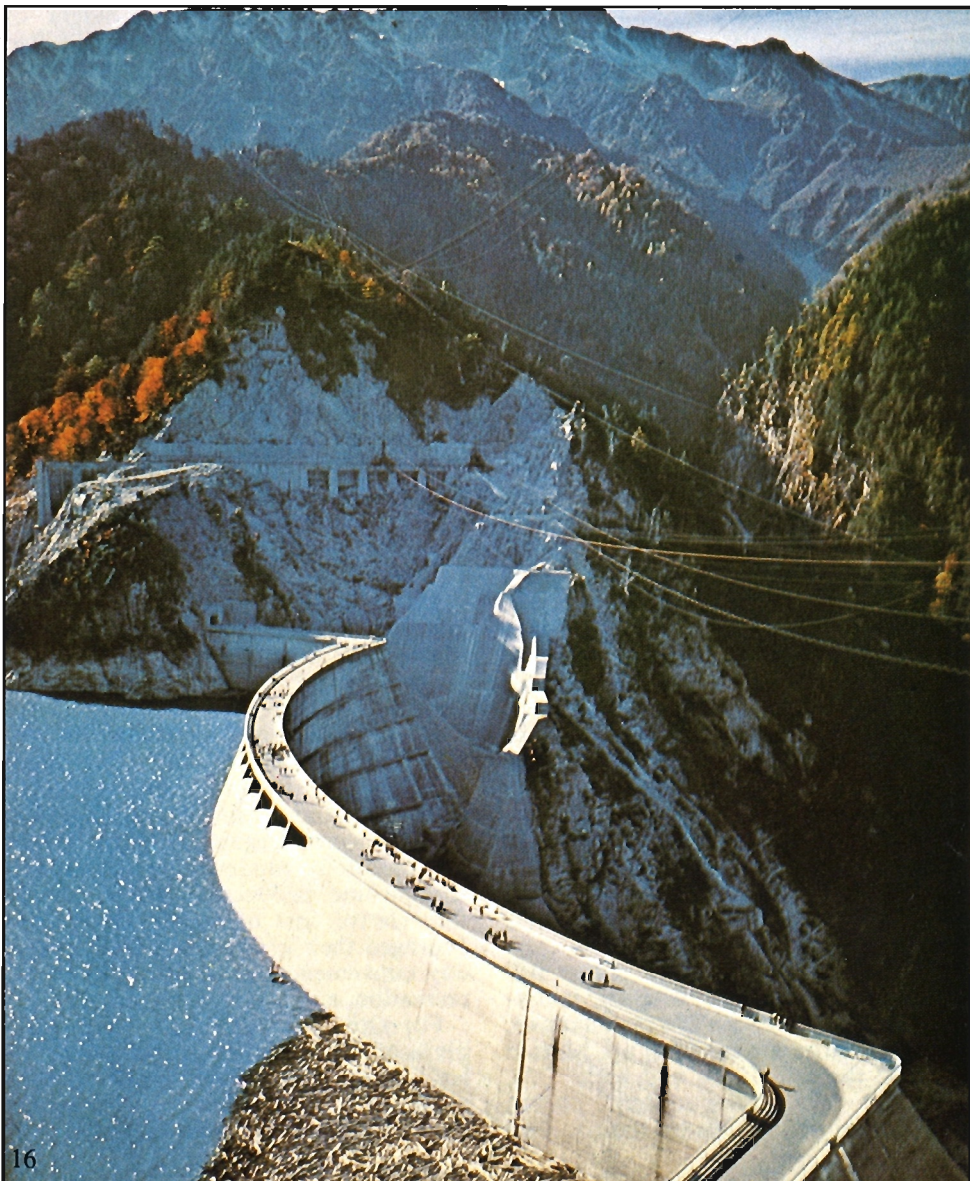
Our man in Singapore

Gordon Riddle, Pacific Region service sales manager, is based in Singapore.

His beat covers one-third of the world's surface



Above: Impressive view of Singapore city taken from Gordon's own apartment. Below: Karobe Dam in Japan where there are several Otis installations.



*Industrial writer Rupert Morris is
cautiously optimistic about prospects
in the construction industry*

BRIGHTER FUTURE IS AHEAD

Prospects for the construction industry are brighter now, in the wake of Mr Healey's October £400 million budget stimulus, than they have been for four years.

No one expects a return to the days of 1973, and indeed few want to see that kind of unreal boom where labour shortages led to the infamous lump labour system which gave the industry such a bad name.

But for the first time since 1973 the quarterly State of Trade Inquiry by the National Federation of Building Trades Employers shows some slackening of the decline in construction.

The two main factors that make for at least a mildly encouraging outlook are Mr Healey's budget and the recent drop in interest and mortgage rates which has coincided with a resurgence of the property market.

The budget will not enable the industry to recover fully from Mr Barber's draconian measures of 1973, but it was more than many in the construction industry had dared to hope for.

Mr Shore's treasury advisers did not want to give away more than £230 million, and although it is highly questionable whether the £400 million will provide 30,000 new jobs as the Government claims, it will do wonders for confidence.

It is likely that most of the money will go towards housing rehabilitation, particularly in the inner cities, but other interest groups such as civil engineering firms, who, at the time of writing, are lobbying Mr Shore, may expect some help—if not now, then perhaps in the next budget in April.

The present budget is undoubtedly geared to easing the terrible unemployment in the building industry.

At the last count this was just under 200,000, excluding professional builders and producers of materials. It is about double the normal jobless total for this time of year.

Although the budget measures will not make the immediate impact on the jobless total that the Government would like, they will give employers the confidence they need before they even think about

hiring extra labour and taking on new projects.

It will probably be two years before the depressed public sector shows any real upturn but the outlook in the private sector is considerably better.

The number of private tender approvals in 1978 seems likely to be back to roughly the level of 1976, when there were 174,900. The 1977 figure was 135,000.

Optimistic forecasts such as these, from the NFBTE, come in spite of the fact that new house prices have gone up by only 35 per cent since 1974, while building costs have gone up by 78 per cent.

The combination of enormously reduced profit margins, a depressed property market and minimal Government aid have led to a substantial contraction in the industry, which no one pretends can be rectified overnight.

But the building industry could soon achieve a new viability on a smaller scale. From the appalling depression of the past four years—the worst since the 1930s, according to many experienced observers—it could rise to become healthy and resilient.

The worst must now be over. The output of new building work has fallen 25 per cent since 1973, and about 5,000 building firms have gone out of business during that time. But Ministers seem to have realised the damage that has been done and there is a positive desire to remedy it. The budget confirms this.

The NFBTE believes that construction has been asked to bear a disproportionate percentage of the cuts made necessary by last year's economic crisis and the demands of the IMF. It has been calling for "a steady and controlled expansion of new building work". That is exactly what it is now getting.

The Federation warned earlier this year that "the last thing the construction industry wants, or could adequately cope with, is an explosion of new building work in either the housing or industrial and commercial sectors".

A steady expansion is what is needed, and the fact that interest rates have fallen from 15 to 5 per cent in many cases is a further encouragement.

● *Rupert Morris is on the industrial staff of the 'Daily Telegraph'.*



JEDDA IS WINNING

Jedda Cross is a brain-injured, 8-year-old girl who works every day on a Doman-Delcato programme.

Jedda's grandfather, Frank Box, is in the works order department at Liverpool, and when an appeal was launched to raise funds to send Jedda to the Institute for the Achievement of Human Potential in Philadelphia, USA, the response from all at the factory, always ready to help, was prompt.

Over £700 was collected as our contribution. Further aid was provided by a climbing frame manufactured in the carpenters' shop. Exercise is an essential part of Jedda's course.

When she first started the programme she was a very quiet little girl who was

unable to hold a conversation with anyone. Today, although still on the programme, she is a very determined extrovert who never stops talking. I can verify this as I met Jedda and her mother at our flower show and open day.

To maintain progress she has to be given 400 items of information each week. This is done by showing Jedda a picture which on the reverse side says what it is.

Pictures are obtained from magazines, books, postcards, etc. As you will appreciate, it takes a lot of material per week. If anybody can help by giving any material that contains pictures, and can be cut up, Frank Box will be very happy to accept.

Alan Blackburn.

APPRENTICE OPEN DAY BRINGS AWARDS FOR A VERY HIGH STANDARD OF WORK

The annual Apprentice Award and Open Day was held at the Liverpool works on Saturday, 8 October 1977.

This is a most important day in the apprentices' year. Parents and visitors have the opportunity to see the work that the apprentices have done and meet management members and training staff.

Highlight of the day is the presentation by Mr Peter Thorne, director of production, to the apprentices who have qualified for first year training certificates, module certificates and indentures.

Trophies and a cash award go to apprentices who gain most points in their year, to the most improved apprentice of the year and for the

director of production's award for outstanding achievement.

This year's award winners were: 1st Year, Andrew Jeffers; 2nd Year, David Evans; 3rd Year, Peter Comber; most improved apprentice of the year, Alan Hill; director of production's award, John Carroll.

The awards are attained as a result of hard work and application by the apprentices in all aspects of their training. John Carroll's award was for his achieving 2nd place in the grinding section of Craftex '77 competition.

Congratulations to all the winners. Keep up the standard you have attained.

BOB HAS GIVEN 88 PINTS OF BLOOD IN 30 YEARS

The chances are that Bob Barnes, service operations manager at Liverpool, has saved a good many lives in the past 30 years.

For he has given 88 pints of blood through the National Blood Transfusion Service.

A coronary thrombosis last year meant that 58-year-old Bob will never reach his target of 100 pints. But he has become one of only four donors in the north-west to receive a commemorative plate marking long years of giving blood.

The award was made at the annual blood donors' session at the factory by Brian Goodinson, regional donor organiser, and in the right of our picture.

"It is possibly the most worthwhile thing I have done in my life," Bob says. "I only wish I could continue. It is something I have worked for, and now I have something to show for it, although that is not important."

Bob first gave blood after coming out of the army in 1946. He used to give blood four times a year. Then new rules came in that only two pints every year could be given.

Brian Goodinson says that Bob's record is fantastic. "It could well be that he has saved the lives of 88 complete strangers over the years."

Story and picture courtesy of the Liverpool Echo.





GARY'S PROMPT ACTION SAVES A WORK-MATE FROM CERTAIN DEATH

Liverpool apprentice Gary Winstanley was working with Gilbert Muldoney on the Royal Liverpool Teaching Hospital site.

In one of those accidents which can always happen, despite all precautions, Gilbert came into contact with a live controller carrying a high voltage.

Immediately Gary ran to

the rescue and pulled Gilbert away by his clothing. Gilbert suffered severe electric shock but would certainly have died but for young Gary's quick and selfless action.

Our picture shows Gary at Allison's Theatre Club in Liverpool with Otis MD Norman Cunningham. He received cuff-links, a tie-pin and a cheque.

COME ON, GIRLS! WHO'S FOR BADMINTON?

Badminton section of the Sports & Social Club needs more women members. At the moment the men outnumber the girls by three to one.

The section was only formed in April of this year, with 20 members, but there are now 57 playing this popular game.

Standard of play is improving. So much so that internal tournaments have been arranged and friendly matches with other clubs are under consideration.

Although we are the 'junior' sports section at Liverpool we have run a successful stall at the first work's gala and used the excellent club facilities to run a disco. It was well attended and, we are told, a great success. Another one is on the way.

We would like, through Otis Magazine, to thank the Sports & Social Club committee, the canteen and security staff, for their help and co-operation in the badminton section's first year of existence.

*Norman Hennessey,
secretary.*

GOOD SEASON FOR GOLF SOCIETY

Dave Scotson started the 1977 season by winning the consolation cup and Alan Beattie became the club champion at Hawkstone Park. Results for 1977 are:

Consolation cup, D. Scotson; 1976 All-winners' cup, R. Ball; April medal, R. Potts; vice-captain's, R. Potts; June-July medal, A. David; Christie cup, W. Young; Sports & Social Club Challenge cup, A. E. Beattie (2nd, D. Craig, 3rd, W. Young); captain's medal, R. Potts; September medal, W. Bate; Autumn trophy, A. David; Spring shield, R. Ball; Fairway shield, R. Ball; match play, D. Allen; greensomes, R. Sutton and A. E. Beattie.

SUMMERTIME SPECIAL 1977

The Summer Gardening Club Show held on 20 August attracted a record number of entries. Eighty people staged a grand total of 505 exhibits. Competition was very keen in each class and the judges had a difficult job in determining what was best among so much excellence.

This year the club has a new president: Bob Davies, facilities manager, has taken over the reins from Bob Barnes, who becomes vice-president. The committee would like to record its thanks to Bob for his past services as president and we were all pleased to see him recovered and able to attend this year's show.

Heading the list of prize winners was Bill Furlong. He had most points in vegetable and flower classes and also won the coveted best exhibit award in flower or vegetable classes—1 to 50. Hard working show secretary, Jim Smith of D44, tied with Bill Furlong for most points overall in vegetable, flower, wine and beer classes. Our photo shows, L to R, Bob Davies, Jim Smith and Jim Furlong.

Overall winner of novice classes for flower and vegetables was D. Lake, of D43, who staged very fine exhibits indeed. Rose Society medal went to Jim Smith, National

Fuchsia Society ribbon was won by A. McCauley and Cyril Dunscombe, of D56, was awarded the silver and bronze medals for dahlias.

The ladies excelled themselves in the domestic art classes and extra tables had to be prepared to stage the number of entries. Ann and Peter Roberts, from Trust House Forte, who judged this section, were full of praise for the quality of the exhibits.

The prize for best exhibit in domestic art went to Mrs. Doreen Blackburn for a superb Victoria sponge cake. All our ladies are to be congratulated for such a magnificent show.

Mrs. M. Wright won the best exhibit in the floral art section with a beautifully staged exhibit. Congratulations also in this class to Miss Kathy McNamara, exhibiting for the first time and winning the first prize for a very striking arrangement.

Prize winners in the children's section, always a very good one, were Miss R. Moss, D. Moss, Miss C. Smith, Miss K. H. Smith, Miss L. Allen and N. Mullin. The children were well catered for at the sideshows and events organised on the sports field by the various sections of the Sports and Social Club.



LONDON GOLF SOCIETY AUTUMN MEETING

Outright winner of the Golf Society Trophy on 29 September at Burhill Golf Club, Surrey, was Alan Goodin (sales administration) with 33 points. Second, and also winner of

the Max Stoker Cup, was Ian Millar (zone construction) with 31 points. Third was Bert Ferguson (London service).

Foursomes winners were Dick Riddle (London sales)

and Alan Goodin. Runners-up were Roy Mills (sales administration) and Ian Miller.

More London news is on page 22.

NEWS

COUNTRY AND WESTERN



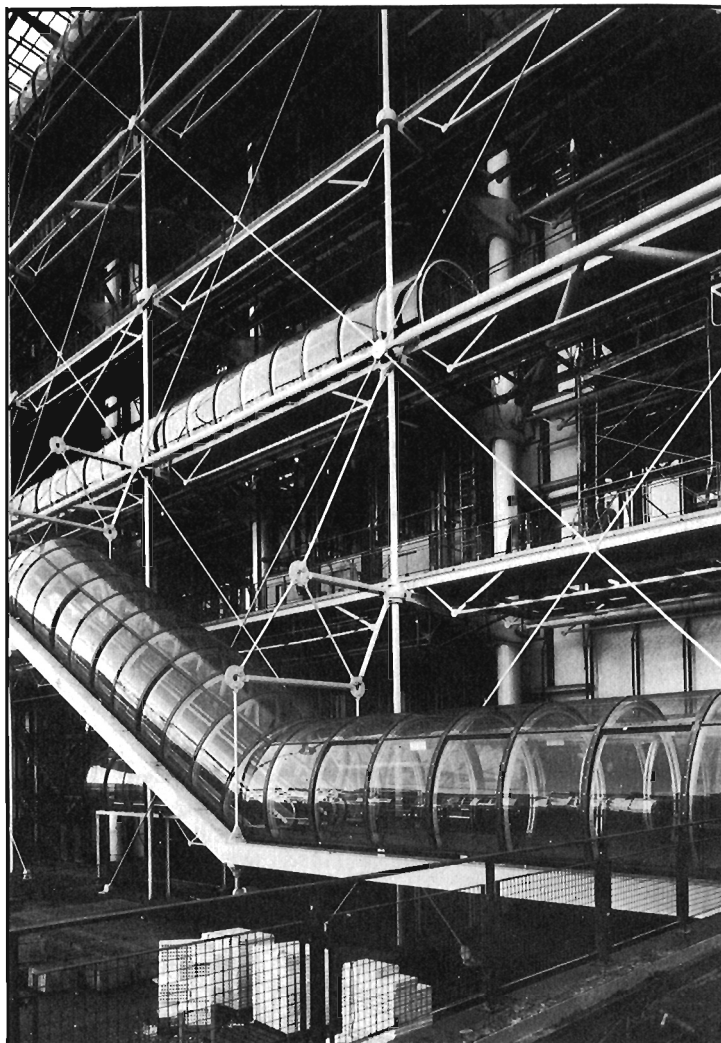
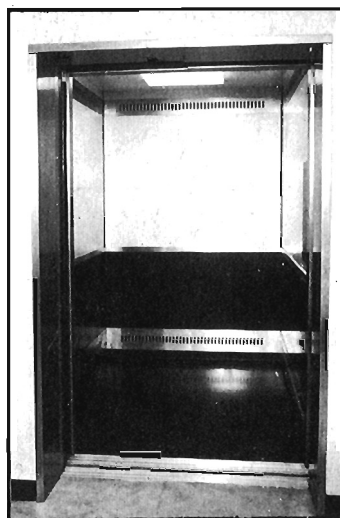
Guess who? It's John Williams, southern region sales manager, with daughter Liza, at last summer's Cheddar jubilee pageant. Customers please note that he doesn't always look this way.

HELP THE OLD



A lot of new facilities to assist geriatric patients have been introduced at Nobles Hospital on the Isle of Man. There are activity areas and kitchens where the patients can cook.

Otis' contribution to the work is a passenger lift with a duty of 1,800 kg at 0.3 mps.

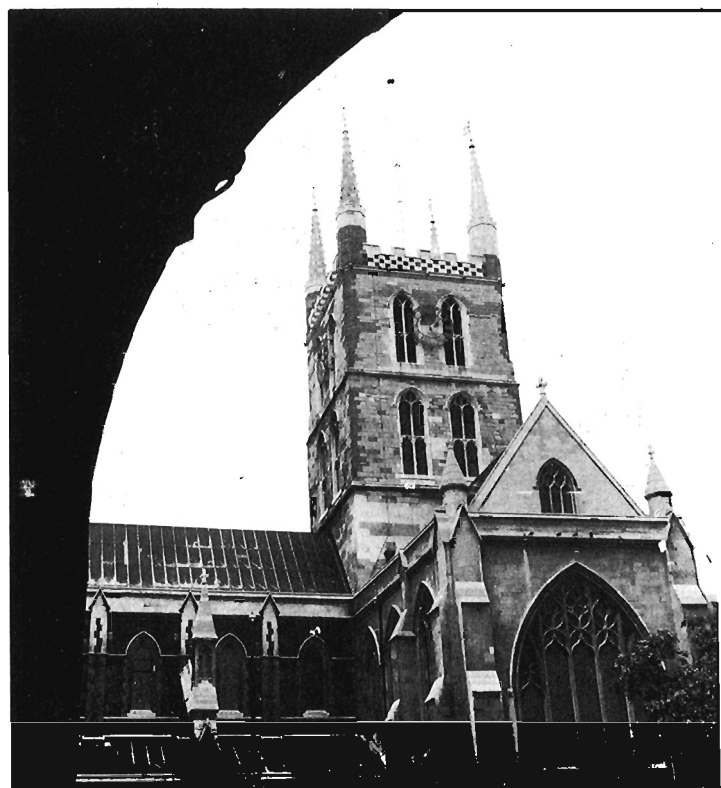


24 ESCALATORS IN GEORGES POMPIDOU CENTRE

Recently opened in Paris, the Georges Pompidou Centre includes four main departments: a vast library, a visual arts section, an industrial design centre and the Institute for Acoustical

and Musical Research.

The building has a total of 24 Otis escalators, both interior and exterior. There are also 18 lifts—seven for passengers and eleven for goods.



LIFTMANSHIP '77 CONTEST WINNERS

Otis Magazine's Liftmanship contest in the Autumn issue brought a good response. We asked in the contest how much you knew about the lift industry and got our answer. A lot of people know a great deal.

The four prize-winners are given below and we offer hearty congratulations.

1st: T. Brooks (London), who wins a Ferguson 14 in. portable television set.

2nd: G. Doswell (London), who gets a Russell Hobbs electric coffee percolator—and we hope the price of coffee comes down soon.

3rd: G. Wright (Liverpool), who can make tea with a Russell Hobbs electric kettle.

4th: D. J. Mora (London), who wins a Kodak Instamatic 130 camera outfit.

BERT RINGS OUT THE BELLS IN SOUTHWARK

In our last issue we mentioned the bell-ringers at the Lambeth Country Show and asked if there were any campanologists in the company.

When you ask that kind of question in a firm as big as Otis a reply comes back pretty quickly. Bert Day of London Construction writes:

"I am a campanologist and among our bell-ringing ranks you will find doctors, welders, teachers, surveyors, fitters and people from all walks of life.

"I mention this because friends think we are a bit unusual. But it is a fine hobby and no more unusual than fishing or golf.

"I am in the London County Association and the Surrey Association and a member of the band at St Giles, Camberwell (pictured opposite) and at Southwark Cathedral. At the moment I am teaching a band to ring at St George the Martyr in the Borough.

"We ring peals of 5,000 or more changes, quarter peals of a minimum of 1,259 changes and also for Sunday service.

"The portable bells you saw at the Lambeth Show are called the Expo Ring, are made at the Whitechapel Bell Foundry, and are taken all over the country to shows".

product page

New CM lift and our Passenger Lift Planning Guide

The Otis 4-passenger serie CM lift has been designed specifically for small hotels and medium-size apartment blocks. It meets the requirements of the latest European safety codes and is particularly easy to install and maintain.

This 2-speed lift gives a smooth ride at 0.75 mps in either of the



two car options. Both cars are available in a variety of colour finishes and with an optional tinted mirror to make a high-quality lift installation.

The serie CM is tailored for the smaller building. It is a new addition to the Otis range offering high aesthetic values at low cost.

Otis have published a unique *Passenger Lift Planning Guide* which should prove most valuable in many sections of the construction industry.

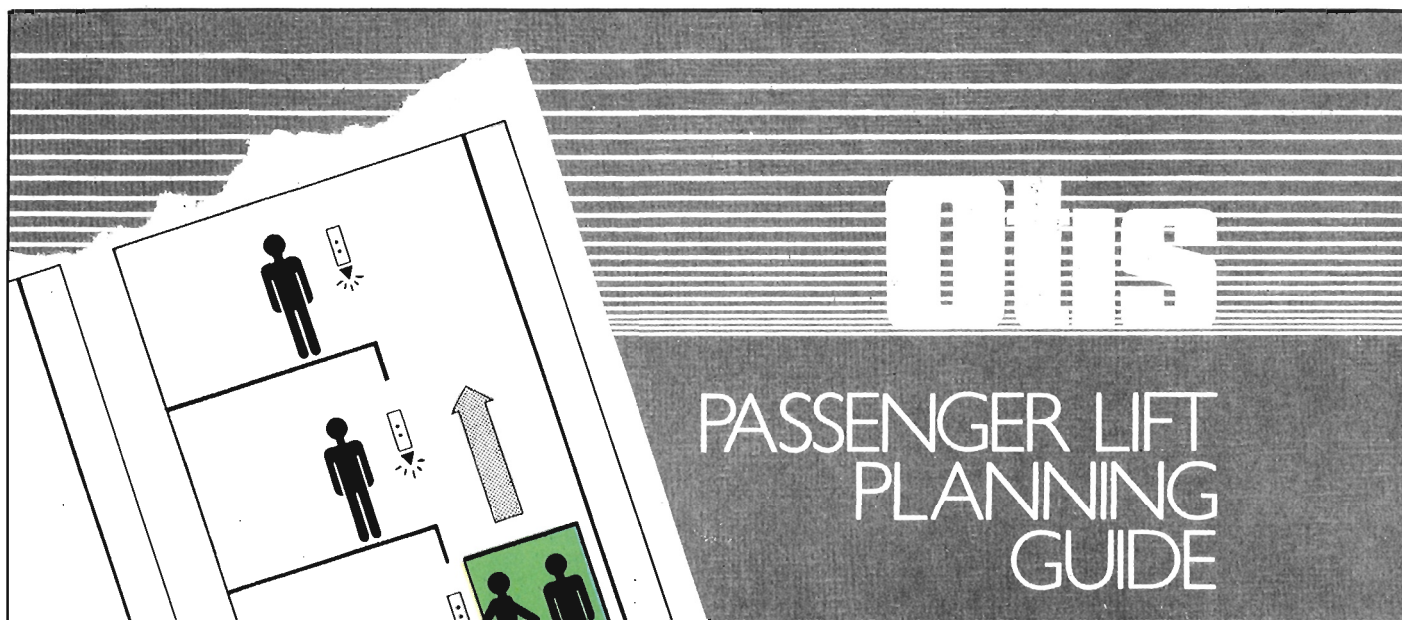
The guide offers the first detailed study in the UK of the new ISO and CEN (European) standards relating to lifts and compares them to the existing British Standards.

The Otis *Passenger Lift Planning Guide* begins by discussing the quantity and quality of service needed in various types of buildings and the location of lifts for most efficient service. It goes on to examine the various control systems, signal equipment and power systems available.

Electric traction and hydraulic systems are discussed and there is a section devoted to entrance configurations.

Space requirements comprise another section and it is this that many in the construction industry will find so useful. It shows the varying standards (ISO and BS) in easy-to-read tables and is illustrated with diagrams setting down passenger lift requirements in different classes of building.

Updates of the guide will be published from time to time and a separate planning guide for escalators will be prepared.



DINNER DANCE

The New Year Dinner Dance is on 14 January at Colonial House, Mincing Lane, EC3. The venue in the City will be handy for many people and we expect to be over-subscribed. Ring Jimmy Green on extension 281 to book your tickets.

HOLIDAYS ABROAD

If you are thinking of taking your 1978 holidays abroad why not book through the social club and get subsidised prices? Ring Steve Waterworth at Clapham Road for a brochure.

WANT TO BE A FOOTBALL MANAGER?

Otis London now has two football teams, Sito A and B, in the third and fourth divisions of the Brockley and District League.

As both Derek Scott and I play ourselves we are looking for two managers.

Will anyone interested ring me on extension 473. All fixtures are in South London. *B. Rains.*

IT'S ALL ROCK 'N' ROLL

Disco and social evenings are held the second Friday of every month at the Norwood Centre, Park Hall Road, Norwood.

I would like to thank the volunteer workers who make these evenings such a success.

Una O'Reilly, June Griffith and Dolores Keatley from accounts, who prepare all the food. Steve Waterworth (youngest DJ in the business) and John Mizon who made our disco equipment—both from zone office.

Geoff Farge from sales engineering and Ron Jury from accounts. And our permanent bar stewards, Frank Neale from the call-out desk, and his wife.

If you want to help, or have ideas for improvements, ring me on extension 473. *B. Rains.*

NOVICE FISHERMEN ARE DOING JUST FINE

The Sea Angling Club is progressing steadily. We cannot claim spectacular catches but our trips are well supported and full of interest. The novices now bait-up for themselves, know about the various hooks, and are hooked themselves on sea angling.

Our third 1977 competition was fished on 9 July at Littlehampton in four boats.

1st, K. Stenson, W/L Repairs, 9lb 2½oz. 2nd, M. McCarthy, LTE, 8lb 12oz. 3rd, W. McIntyre, Office, 8lb 6oz. Best fish K. Stenson (6lb ½oz. thorny back skate); W. McIntyre (4lb 12oz. bass) and M. McCarthy (2lb 6oz. black bream).

The fourth contest was at Littlehampton but the boats had to return because a gale was blowing up. Few fish were caught and there was no weigh-in.

The fifth contest was again at Littlehampton in four boats and rough water made fishing difficult.

1st, G. Glover, C/L Service, 4lb 12½oz. 2nd, K. Stenson, 4lb 5oz. 3rd, C. Hall, service supervisor, 3lb 10oz.

For 1977 best aggregate points were won by K. Stenson. Best fish caught in 1977 was M. McCarthy's 2lb 6oz. black bream.

Private trips have been fished and some very good catches recorded. Among these was a trip by T. Paton, D. Knight and C. Hall. After eight hours afloat they returned with 100lb of cod, whiting and pouting.

The committee has now organised competitive fishing for 1978 and there will be cups and medals for winners. All trips will be from Deal, four boats per outing, so note these dates in your diary, all Sundays: 15 January, 19 February, 19 March, 16 April, 14 May, 11 June, 16 July, 13 August, 24 September, 22 October, 12 November and 10 December.

It is also hoped to book some fishing weekends away, and some 'wreck fishing' if possible. Names of those interested to me or G. Wilton on extension 218.

Finally, if any readers have fishing tackle to sell will they please contact me or any committee member.

K. Stenson.

CHARLES FENWICK SCHOLEFIELD



Charles Scholefield, universally known as Charlie, was born in South London in 1904. His parents were from York and his father worked in a building contracting firm in London. Throughout his life Charlie remained very proud of his Yorkshire parentage and often gave this as the reason when he was stubborn.

After attending school in Battersea where he was often top of his class, he joined Waygood-Otis as an apprentice in 1920. The factory was within two miles of his home. As an apprentice he worked on general engineering but soon showed his talents in the electrical test area. In 1924 he was involved as an apprentice in the construction of the model lifts which the company made for the Queen's dolls house exhibited at the Wembley Exhibition in 1925.

He was subsequently employed as a fitter with service department and as a tester. In the 1930s at a time when new electrical equipment was being imported from the USA he was put in charge of the service 'Trouble Shooting Squad', sometimes known as the Crazy Gang, whose job it was to solve all service problems. He collected around him a number of well-known assistants such as Graham Lambie, Basil Pirie, George Burleigh and Ted Perry.

His prowess as the man who could solve every technical field problem became widespread, along with his ability to teach others. He had at all times the desire to strive after perfection and his attention to detail was beyond most men. He had very strong views on a number of basic lift subjects and was never afraid to expand these views to anyone. His general dignity and bearing was such that he

commanded respect at all levels and he became one of the best known figures in the lift industry in the UK.

During the last war he continued to keep lifts running under very difficult conditions at the same time spending time on war work in the factory and as an air raid warden.

He always dressed conservatively and always wore a bowler hat. This he was known to use to show the effectiveness of safety shoes on power-operated doors.

After the war he was appointed as superintendent of branch offices, a job which he never liked because it was administration and not technical. He always found ways of introducing the technical aspect into these activities in his tours of branch offices. For the last few years of his active service with the company he again became the field engineer responsible for both construction and service. It was at this time that he was responsible for the field prototype testing of the 155HT machine.

After his retirement, at 65, he was invited to South Africa and Kenya to help to train field engineers and adjusters and spent a year there in which he endeared himself to all and became known as the 'gentleman in the bowler hat'.

After his return from South Africa into full retirement he enjoyed his hobby of gardening. A life-long bachelor, he continued to live in the family house and to tend the large garden which was always a delight to the eye.

In 1971 Otis was invited to re-build and overhaul the two model lifts (in our picture) which had been installed in 1924 in the Queen's dolls house and Charlie undertook the task he had started as an apprentice 50 years earlier. He completed the work and the model is on exhibition at Windsor Castle to this day under maintenance by Otis.

A loyal supporter of the Otis Long Service Association and a regular attendee at all their social events, he was always in great demand as an after-dinner speaker in which role he had a superb style all his own.

His death removes one of the greater characters from the Otis family.

I trust you all had a good Christmas. You remember Christmas, of course? You ought to, because it wasn't that long ago, and the bills haven't even started to come in yet.

A time of peace and goodwill, is it? How do they dream them up? Peace and goodwill have about as much chance of survival in your average Family Christmas as a raving insomniac has of grabbing forty winks on a runaway Big Dipper.

I know, I've had some. The first casualty of every Family Christmas is truth. Try these for size . . .

'We'll do the shopping early this year. Definitely. No more last-minute panic buying . . . ' 'We'll have dinner on time and watch the Queen's broadcast . . . ' 'Let's keep the bills down this year, too . . . ' 'Don't bother to buy me very much, a small token present will do . . . ' (Just try it and see what happens.)

'Of course it'll be lovely to have your mother with us . . . ' 'It's only a small office party, dear, I'll be home by 10 . . . ' 'I didn't want to stay at the bar but the fellows insisted . . . ' 'Lipstick? What lipstick? That's jam . . . ' 'She must have caught me under the mistletoe when I wasn't looking . . . '

'I've told you before, my secretary is 65, fat and bandy . . . ' 'Drunk? Who says I'm drunk? . . . ' 'Christmas is for children . . . '

Of course it is. But for peace and goodwill?

'There's a card here for you from Olive—who the devil's Olive?' 'Dad, the stupid bulbs won't work again!' 'It's no use lying down there, there's far too much to do.' 'Are you going to help or not?'

'What do you mean, you left the Christmas tree on the train?' 'Dad, dad, when are we putting up the decorations, dad?' 'You know we still haven't got anything for your mother yet, don't you?' 'What do you mean what do I mean I've run out of money?' 'Damn, here's another one we haven't sent to—where's that blasted Christmas card list?'

And finally, 'Oh, look, just what I've always wanted . . . ' (Flaming socks again?)

Oh, yes, S. Claus, Esq., roof-top tobogganist, chimney acrobat and part-time philanthropist has much to answer for and as far as I'm concerned should be sent back under the Trades Descriptions Act.

Keeping him alive in all his so-called merry traditions, ho-ho-ho, produces the most problem-packed, chore-stuffed time of any month in the year. And yet every year, in defiance of the facts, we bombard each other with bits of coloured cardboard wishing each other a Merry Christmas. Merry? What are we, sadists?

When the first carol comes over the air or the first bit of tinsel glitters from a shop window my stomach tightens. Surely not another Christmas already! We just got over one, didn't we? Wasn't it only last week we got rid of the last of the pine needles and I stacked away my Christmas whiskers? Am I not

still on a post-Christmas diet? Wasn't it only the other day the bank manager started smiling again?

For a time I try to pretend Christmas isn't there. If I ignore it maybe it'll go away. But there's no escape. We're all stuck on the December Big Dipper and we're there till the ride's over. It's no use yelling, 'Stop Christmas, I want to get off!' They won't let you off.

Like Scrooge I am haunted by nightmares of Christmases Past . . . running out of booze because I've got at it too early, running out of breath blowing up balloons; humping and bumping a 7ft tree through the Christmas crowds, with pine needles working their way down my neck.

Digging the garden in a blizzard to pack soil in the pot; trailing mud into the house and getting a blast of verbal grapeshot from the turkey-organiser—where's the peace and goodwill in that?

A merry Christmas? I'll tell you what

LAST PAGE WITH REID

Remember Christmas?



a merry Christmas is. It's sitting amid the pine needles twisting 54,000 little bulbs to find which one's broken the circuit; it's wobbling on chairs hanging up old streamers from the box in the cupboard; it's picking off bits of cotton wool and sticky tape from Christmas tree baubles and trying to thread them on to twigs that spring back at your whisky-glowing face.

It's writing into the night to catch up on the Christmas Card War—and still being shelled in your hole by salvos from forgotten friends when it's too late to fire back. It's panic shopping and the piling of parcels in secret places. It's a security problem, furtiveness, evasions and plain damn lies.

'Will Father Christmas really come tonight, daddy?' Yes, son. 'Will he ride through the sky on his sledge and climb down our chimney?' Yes, son. 'How does he get down the chimney?' He shrinks into a magic balloon. 'And what happens if we haven't got a chimney, daddy?' He comes in through

the window, son.

Oh dear, when first we practise to deceive, what a tangled web . . . etc.

I well remember the first time I lied to one of my own kids in the cause of a merry Christmas. It was one morning in mid-December. For a week or more parcels had been mounting in secret places about the house. I was flinging around in the airing cupboard trying to find a clean shirt under a pile of family laundry when a wrapped-up Dalek fell on my bare foot.

My agonised groan brought the toddler dashing from his bedroom. 'What's happened, daddy? Why did you shout, daddy?' Then, as his eyes lit on the parcel I was hurriedly trying to conceal about my pyjamas, filial concern for my wounded toes vanished.

'What's that? What have you got in the parcel, daddy?'

'Oh, nothing,' I muttered. 'Just a pair of shoes I bought.'

'Can I see them? Will you show me your new shoes, daddy?'

It was as near as his suspicious mind could get to calling me a liar. Any other time of the year and he couldn't give a hoot about my shoes but comes December and there's something in the air that makes their mini-brains doubly suspicious of anything wrapped-up.

In the end I only arrested the buzzing of his hornet mind by promising him a treat he could rarely resist—letting him blow the whiskers out of my shaver.

Somehow, between the jigs and the reels, you stagger through each crisis in turn until, finally, in the early hours of Christmas morning you flop into bed.

Three hours later a small hand is shaking you excitedly. 'How do you work this toy, daddy?' It's 5am, his presents are already scattered over the bedroom floor and all you can do is groan through your hangover, 'Go back to sleep, you noisy little tyke!'

As for Christmas Day itself I never cease to marvel at the breathtaking punctuality and order in the lives of our public personalities as seen and heard on radio and TV. There they are, from the Queen and Prime Minister down, walking sedately to church on time, eating their Christmas dinners on time, wearing their party hats on time and pulling their crackers on time. What organisation!

Comes 6pm, when we see all these characters, spruce and tidy on the box, where are we? Collapsed and dishevelled among the debris of pudding plates, empty bottles, nut shells and cracker wrappings—and wearing our funny hats three hours behind schedule.

And I'm bound to say that this is usually because my own personal turkey-organiser, determined to introduce a note of bonhomie, gets stuck into the Christmas sherbert three hours too early. In the interests of peace and goodwill I am loath to call for a kitchen breath test, but I know she's drunk in charge of the dinner again.

I know because on Boxing Day she always wakes up with a start and says urgently: 'Did I cook any sprouts with the turkey on Christmas Day?'

—Colin Reid
23



Newly completed construction work in Glasgow and Brighton

Head office of the Scottish Amicable Life Assurance Society (left) in St Vincent Street, Glasgow, has a group of three 260 Otis lifts plus two goods lifts and service lift. Salesman was T. M. Harter; construction supervisor, J. D. Low; service representative, J. Whyte. Builder: Melville Dundas and Whitson. Architect: King Main and Ellison.

American Express recently moved their European headquarters to a purpose-built block in Brighton (below). It is served by an Otis 6-car 260 group (below left) plus goods and service lifts. Main contractor: Taylor Woodrow. Architect: Golling Melvin Ward Partnership.



**NEW YEAR 1978
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