

3-5-56

2:0 P. AUTOMATION IN THE UNDERGROUND:

A REVOLUTIONARY SYSTEM OF AUTOMATION IN PASSENGER TRANSPORT WAS INTRODUCED TO BRITAIN TODAY:

WORKING ON A CONTINUOUS CONVEYOR BELT SYSTEM AND DOING AWAY WITH GUARDS AND DRIVERS; THE SYSTEM WILL BE DEMONSTRATED NEXT WEEK AT THE MECHANICAL HANDLING EXHIBITION AT EARLS COURT.

A YORKSHIRE FIRM; THE BRITISH LICENSEE FOR THE AMERICAN IS INVESTIGATING THE MANUFACTURING PROBLEMS AND PLANNING FOR THE FUTURE APPLICATION OF THE SCHEME IN BRITAIN'S HEAVILY POPULATED CITIES:

THE SYSTEM INCORPORATES A MOVING "SPEED WALK" WORKING IN CONJUNCTION WITH A "CAR-VEYOR":

PASSENGERS ARRIVING AT THE STATION ALL GO TO ONE PLATFORM WHERE A 60-FOOT MOVING BELT; THE SPEED WALK; FUNS AT A CONSTANT ONE AND A HALF MILES AN HOUR; ALONGSIDE THE SPEED WALK AND TAKING THE PLACE OF CONVENTIONAL TRAIN TRACKS IS ANOTHER BELT MOVING AT THE SAME SPEED AND CARRYING 19 PASSENGER CARS EACH CAPABLE OF HOLDING 15 TO 20 PASSENGERS; THE PASSENGER STEPS FROM THE SPEED WALK INTO THE CAR; THE DOORS SHUT AUTOMATICALLY AND; AFTER CLEARING THE SPEED WALK; THE CAR IS ACCELERATED TO 15 M.P.H.

THE PROCESS IS AUTOMATICALLY REVERSED AT THE TERMINUS WHERE CARS ARE DELIVERED 19 TO THE MINUTE. THE AUTOMATIC SYSTEM IS NEARING READINESS FOR INSTALLATION IN NEW YORK; LOS ANGELES; CLEVELAND; CHICAGO AND CINCINNATI:

IN NEW YORK IT IS PLANNED TO RUN A SHUTTLE SERVICE BETWEEN GRAND CENTRAL STATION AND TIMES SQUARE TO MOVE 36,000 PASSENGERS AN HOUR INSTEAD OF THE PRESENT 23,000 CARRIED BY CONVENTIONAL TRANSPORT:

ESTIMATED COST OF THE NEW YORK SCHEME IS FIVE MILLION DOLLARS:

A SALES EXECUTIVE OF THE AMERICAN MANUFACTURING COMPANY SAID AT A LONDON PRESS CONFERENCE TODAY: "THIS SYSTEM BRINGS COMPLETE AUTOMATION TO PUBLIC TRANSPORT:"

CONSIDERED TO BE IDEAL FOR RELIEVING CONGESTION IN CROWDED AREAS THE SYSTEM COULD BE APPLIED IN LONDON TO SUCH PLACES AS THE WATERLOO-BANK SHUTTLE LINE REPLACING THE EXISTING RAILS AND TRAINS; IT WAS SUGGESTED:

READ THIRD PARAGRAPH:- THE BRITISH LICENSEE FOR THE AMERICAN SYSTEM ETC:::~::~:

ccourc.

AUTOMATION FOR PASSENGERS

DISPLAY NEXT WEEK

Daily Telegraph Reporter

Automation has reached public transport. An American scheme to adapt the industrial-type conveyor belt to the field of human transportation is to be demonstrated at the Mechanical Handling Exhibition and Convention, which opens at Earl's Court on Wednesday.

Passengers at a station step on to a 10ft belt called a "Speedwalk" which is running at 1½ m.p.h. A second conveyor belt, travelling at the same speed, runs alongside carrying 19 passenger cars a minute. The passenger steps off the "Speedwalk" into the carriage, the doors of which open automatically.

Once clear of the "Speedwalk" the doors close and the carriage rolls over a bank of tyred accelerator wheels which step up the speed of the conveyor from 15 m.p.h. The reverse process operates at the terminus. British licensees have been appointed. But I understand their immediate plans are to investigate the manufacturing problems.

Mr. F. G. Montfort Bebb, assistant chairman and managing director of Associated Iliffe Press, publishers of Mechanical Handling, the journal which organises the exhibition, promised exhibits "far surpassing" those at the last display in 1954. The exhibition will be open until May 19.

Daily Telegraph.

4th. May. '56

Mr. Hagg

MECHANICAL HANDLING EXHIBITION and Convention

ORGANIZED BY "MECHANICAL HANDLING" AN ASSOCIATED ILIFFE PRESS LTD. JOURNAL

Press Officer: Maurice J. Seymour,
Dorset House, Stamford Street,
London, S.E.1

Telephones: DAY · WATERloo 3333
NIGHT · IMPerial 1858
Exhibition: FULham 1234
Cables: Mechand - Sedist - London

BRITISH MECHANICAL HANDLING GOES ON SHOW TO THE WORLD!

Greatest-Ever Display at Earls Court

The Mechanical Handling Exhibition & Convention - at Earls Court, May 9 to 19 - is the largest and most important of its kind in the world. Exports of the British Mechanical Handling Industry total £100,000,000 annually.

The first Exhibition, in 1948, occupied 55,000 sq. ft. This year it covers 400,000 sq. ft. Buyers are known to be coming from more than 50 countries.

The Exhibition will be officially opened, at 11a.m. on Wednesday, May 9, by Sir Miles Thomas.

An international Convention - the first of its kind - will run concurrently, at which speakers from all over the world will discuss the latest labour-aiding equipment and its application to their own industries. A full programme of films has also been arranged.

Mechanical handling is the largest single factor in man's constant quest for higher output with lower production costs, and is destined to play a large part in the future automation of this country - examples of the latest automatic processes will be seen at this Exhibition.

The Exhibition and Convention is organized by the journal "Mechanical Handling" - one of the Associated Iliffe Press group - with the support of Aerial Ropeways Association; Association of Crane Makers; Foundry Trades Equipment & Supplies Association Ltd; Industrial Truck Manufacturers' Association; Mechanical Handling Engineers' Association.

It is open daily from 10 a.m. to 6 p.m.

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QUICK GUIDE TO
PARTICULARLY INTERESTING EXHIBITS

This Exhibition is the most comprehensive of its kind in the world, showing all aspects of mechanization and their application to the future automation of this country.

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An Aerial Ropeway - the first ever to work in London - has been built on the Forecourt of Earls Court, almost over the pavement of Warwick Road. It symbolizes, not only the movement and spectacle which is to be found in this Exhibition, but points also to all that mechanical handling means in 1956. These are the slogans it carries:

- | | | | |
|----------------|----------------|------------------|--------------------|
| Greater Output | - Lower Cost | Cheaper Products | - Higher Wages |
| More Movement | - Less Fatigue | More Space | - Less Congestion |
| More Brain | - Less Brawn | Time Saved | - Waste Eliminated |

(British Ropeways Ltd)

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One of the world's largest diesel-electric, production-line rail cranes, capable of lifting 20-tons at a 10ft. radius, with 30ft centres strut-type jib. Shown on the Forecourt - at Warwick Road entrance. (Manufactured by Steels Engineering Products Ltd)

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The automatic factory is now a practical proposition. An outstanding example of this is the new conveyor system, equipped with electronic control, designed to operate to a pre-determined programme, prepared and stored on punched tape for an hour, a day, or even a week ahead. This is indeed automation in action!

(Developed by Fisher & Ludlow, in collaboration with the E.M.I. Engineering Development Organization: Stand No: 90)

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First all-British design and produced Light Monotower Crane. This spectacular crane, situated in the centre of the Exhibition Hall, has a 100 ft horizontal jib. Previous cranes of this type have been mostly of Continental design and manufacture.

(Bulters Bros & Co Ltd: Stand No: 75A)

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A new and revolutionary system of passenger transportation, by conveyor belt, is now almost ready for installation in some of the bigger American cities, and the question is ... "will it work in Britain"? This new method of relieving congestion in overcrowded areas - which is likely to revolutionize future public transport services - is being demonstrated for the first time in Britain at this Exhibition.

(Situated on First floor at Warwick Road entrance)

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Replica of Associated Rediffusion's mobile hydraulic platform (they are calling it 'The Thing') which is capable of raising a camera and crew to heights of 40ft or more. Obviates the necessity for erecting scaffolding when a high angle camera shot is necessary.

(Manufactured by Simon Engineering (Midlands) Ltd. sited on West Brompton Demonstration area)

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A game of chess is being played by a 5-ton crane to show the application of this type of equipment to automation. The moves are controlled by a tape recorder to give the necessary automatic action - the pieces being moved by a small magnet attached to the crane hook. This Company does not wish to have this information published until May 8.

(The Vaughan Crane Co Ltd: Stand No: 97)

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A full range of self-propelled mobile, and other types of cranes - including some of the largest in the world - are being shown, as are tractor-mounted loaders. Full particulars of these can be obtained from the Analysis of Exhibits available from the Press Office.

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Automation in office systems will be another feature of this Exhibition. One is an automatic writing machine and another a system for the automatic production of ledger cards, specifications, works orders etc.

(Block & Anderson: Stand No: 227).

(Remington Rand Ltd: Stand No: 245).

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A major advance towards automation is represented by the 'Greer' Palletizer seen for the first time in this country. This simple and efficient unit is capable of placing up to 1,800 cartons, crates or sacks per hour on pallets, and has taken the place of back-breaking and inefficient, manual palletization.

(Patterson Hughes Company Ltd: Stand No: 99).

(Lansing Bagnall Ltd: Stand No: 61).

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A moving stair has been invented which can be fitted into your own house. (Bennie Metal Products Ltd. Stand No: 207)

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Many new and outstanding conveyor systems are on show for the first time in this Exhibition (see Analysis of Exhibits): some have unusual uses. One conveyor, for instance, has been used for transporting infantile paralysis patients from dressing rooms to swimming pool.

(British MonoRail Ltd: Stand No: 43)

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Detection equipment which removes the risk of 'foreign' metal objects remaining in food sent to the shops. These machines are also being applied to an ever-widening group of articles from soap to textiles. A novel use is the detection of bullets in timber cut from war-torn areas.

(Goring Kerr Ltd: Stand No: 96A)

(Electroma Industrial Equipment Ltd: Stand No: 80B)

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Self-service shops and Supermarkets are making an increasing use of mechanical handling equipment. One exhibit shows a 'Lowerator' for handling light packaged goods such as cigarettes, teas, chocolate, etc.

(Conveyor Cafeterias Ltd: Stand No: 30A)

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'Eimco 21 Rockershovel' with which the European rock-tunnelling record was broken. This machine cut a 10ft. 6in. diameter tunnel through very hard epidiorite rock, over a distance of 428ft. in seven days.

(Eimco (Great Britain) Ltd: Stand No: 38).

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The problem of rapidly picking up, transporting in safety and at speed and setting down lengthy, bulky loads with the minimum of equipment and labour has been solved by the widespread use of the Straddle Carrier.

One of these machines is said to be equivalent in performance capacity, to two or three tractors, and 30 trailers, and to be far more efficient.

(British Straddle Carrier Co Ltd: Stand No: 22).

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A simple, but highly efficient power shovel designed for the movement of material in bulk - such as gravel, sand, grain, etc.

(Redler Conveyors Limited: Stand No: 63).

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An entirely new approach to car parking in congested areas is demonstrated for the first time. Advantages are (1) considerably reduced cost, (2) bigger area for parking, (3) 100% access to every vehicle. This is one of the features of the Special Developments and Installations Display located on the First Floor above the Warwick Road Entrance.

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Model of mechanical handling plant being installed in the new atomic power station at Chapel Cross, Dumfriesshire.

(Mitchell Engineering Ltd: Stand No: 83).

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'Packaged' sets of overhead crane parts comprising all the accurate machining and mechanical details for crane bridges up to 46 ft. span.

(Doity Cranes Limited: Stand No: 146A).

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Wagon marshalling system using push-button control - said to replace conventional shunting and manhandling methods.

(Mitchell Engineering Ltd: Stand No: 83).

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100-ton overhead electric travelling crane (capable of lifting the weight of 10 buses) the largest of its kind ever exhibited in Britain.
(Wharton Crane & Hoist Company Ltd: Stand No: 74).

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Isotope carrier and terminal for transfer of isotopes from cyclotrons by carrier air tube to 'hot room'.
(Lamson Engineering Limited: Stand No: 144).

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A conveyor which is expected to play an important part in the extension of automation in machine shops, and in the mechanization of spares stores, is the 'Stanrun' overhead chain system.
(George W. King Limited: Stand No: 62).

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Automation in the dyeing and dry-cleaning industries - a conveyor which is 'told' where each garment has to go; 'remembers' it; and delivers the piece of clothing automatically to the correct point for packing and dispatch.
(And in a large organization there may be hundreds of such points!)
(Sovex Limited; Stand No: 70).

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Automation in the foundry is shown in a scale model of a plant for the production of small repetitive castings in all known foundry alloys.
(Rubery Owen Ltd; Stand No: 105).

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Ways and means of integrating the indexing type and pneumatically operated tray conveyors and conveyORIZED furnace installations into fully-automatic automobile and foundry production lines are being shown by ...
(Abisch Conveyor & Furnace Co. Ltd: Stand No: 80A).

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A very full range of industrial fork trucks is on display - from the giant fellow capable of handling up to 8 or 9 tons, to the fast, little electric-battery jobs equipped for carrying every kind of light load.

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Two special areas have been set aside for open-air working demonstrations of diesel-operated equipment - comprising cranes, fork trucks, straddle carriers, earth moving equipment etc. These are situated on the West Brompton and Philbeach areas outside Earls Court.

END

(Since Sir Miles' speech will be preceded by a fanfare of trumpets, it is felt that he might care to open his remarks with a reference to this, perhaps something along these lines).

And I think that that, ladies and gentlemen, is an excellent note on which to open this Exhibition, for it is now not only the most important but also the largest Exhibition of its kind in the world. The British Mechanical Handling Industry came into its own during the war when the best brains in this country were called upon to devise new and revolutionary methods of speeding output with the minimum of labour then at its disposal. There is no need, of course, for me to stress the remarkable achievements between 1939 and 1945. In fact, I would go so far as to say that mechanical handling made one of the greatest of all industrial contributions to the allied victory.

With the change-over from war to peace, came the immense task of re-equipping our factories, and it was here that mechanical handling really began to grow. One of the most urgent jobs was to put the mines on their feet again and in the immediate post-war years 35 million feet of conveyor belting, and some 100 million pounds' worth of this and other mechanical handling equipment was supplied to win coal from the soil.

At that time, a general industrial revolution was beginning to take shape - in food manufacture, in shipping, in agriculture, in the timber mills, steel works, docks, railways, harbours, gas and electricity undertakings and many other branches of industry, all of which were quick to see the need for the kind of equipment that would give them greater productivity at less cost.

It was, indeed, the appreciation of this industrial revolution which brought about the first Mechanical Handling Exhibition in 1948, when it was held in the National Hall, Olympia, and occupied some 90,000 square feet. Today this Exhibition covers more than 400,000 square feet or something like five times the original floor space. This is a graphic illustration of the remarkable growth of this industry which now exports over 100 million pounds' worth of its equipment annually.

To my mind there are two outstanding things to say about the British Mechanical Handling Industry. The first, as we have just seen, is that through the shipment of its own products abroad, it is able to bring back to this country a vast sum of money every year. Secondly, it provides the necessary means for manufacturers in a wide range of other industries at home to increase their productivity and, in turn, their own exports. It is important, I believe, to emphasise that mechanical handling helps to provide cheaper products with higher wages for all of us.

From my own experience I can say that various types of equipment developed by several of the firms represented at this Exhibition have helped B.O.A.C. in its endeavour to improve efficiency in the ground handling and maintenance of large airliners. Indeed, there is a two-way flow of ideas between the Corporation and the various firms - an exchange which has proved

beneficial and fruitful in the development of new items of equipment for use at airports.

In this Exhibition we can see the vast array of new equipment which the industry has to offer. It is a deeply impressive spectacle and I should like to congratulate the Associated Iliffe Press Ltd. and their journal MECHANICAL HANDLING who have been responsible for the organisation of the series of exhibitions of which this is the Fifth and biggest. I am sure, for instance, that none of you can have overlooked the outstanding exhibit at the Warwick Road entrance. I am referring, of course, to the aerial ropeway - the first of its kind ever to operate in London. It is impossible to miss the gigantic tower crane which, I am told, is the first of its kind manufactured in this country under Ministry of Supply specifications. The extremely wide range of industrial fork trucks is also worthy of note - from the massive fellow capable of handling up to eight or nine tons to the fast little electric battery jobs equipped to carry every kind of light load. Another outstanding piece of equipment is the giant overhead travelling crane, capable of lifting 100 tons; again, the largest of its kind in the world. After the Exhibition it is being delivered direct to the Central Electricity Authority's Bold Power Station near St. Helens, Lancashire.

Automation is much in the news nowadays and mechanical handling is playing an ever increasing role in this important development. Here also, we have the opportunity of seeing examples of this latest trend in engineering development and its application to conveyor systems, package handling, electronic crane control and so on - all of which, to a layman like myself, even with a long experience of industrial matters, leaves me somewhat over-awed by its ingenuity.

Even more startling, perhaps, is the most recent application of mechanical handling to public transportation and I would particularly like to draw your attention to the model which is on display in this hall. This is a revolutionary system, in which the industrial moving conveyor belt principle has been skilfully related to the field of human transportation. It seems to me that here is something which is bound to have a far-reaching effect on future systems involving the mass movement of people in crowded cities. Surely, it is automation in public transport, for the system is entirely automatic, employing neither drivers nor guards.

I have already mentioned the value of various items of equipment used by B.O.A.C. with which organisation I have been associated for the past eight years. In my new sphere I shall be working with a business concern which, by the very nature of its activities, is more intimately concerned with mechanical handling and automation. In Monsanto Chemicals wide use is made of cranes, mechanical shovels, fork-lift trucks, mechanical trailers, built-in bucket elevators, air conveyor systems, assisted gravity feed methods, and the like. Automation is already in use in continuously operating plants and it is being extended to convert batch manual operated plants into continuous automatic operations. Indeed, several major plants already approach 100 per cent. automatic handling and work continues on many further potential applications. The ultimate aim is to eliminate all manual operations which can be mechanised - an aim which this excellent Exhibition must surely stimulate throughout the whole of industry.

I see the day approaching - indeed it must come - when automation in Britain's factories will be widespread, enabling us to produce more, in less time, and at less cost, and so will help us to gain an ever bigger share of the world's markets which, in turn, must result in a better all-round standard of living for everyone.