

ECONOMIC LEAGUE LTD

New

OCTOBER 1965

BLUNT & WRAY

J. FRANCIS COOTE

Future

FOR YOUTH IN INDUSTRY

Peter Johns
See page 48 back.
AL

WHERE THE MONEY GOES

The following breakdown shows where each £1 of the earnings of the Taylor Woodrow Group of Companies went in 1964.

	s.	d.
Wages, salaries and payments to sub-contractors	10	8½
Materials and services	8	2½
Depreciation	5	½
Taxation	3	¾
Retained in business	2	¼
Net dividends to members	1	½

Total 20 0

PLANT FOR CZECHOSLOVAKIA

Following negotiations in Prague between officials of Rubery Owen & Company Ltd. of Darlaston and the Czech Foreign Trade Corporation, Strojimport, a complete "Hallsworth" Automatic foundry plant has recently been supplied to Czechoslovakia, designed and developed by Rubery Owen Foundry Equipment Division. The plant is being installed in the foundry of Branecke

Zelezarny near Opava for the production of small malleable iron castings, and the value of the plant is in the region of £35,000.

The Hallsworth Automatic foundry system is a new approach to the manufacture of small ferrous and non-ferrous castings by mechanised methods and is revolutionising the high rate production of castings such as water-pipe and

conduit fittings, valves, lock-cases, keys, rope sheaves, automobile fittings and thousands of items limited only by the size of moulding box accommodated by the plant of up to 18 ins. x 12 ins. x 3½/3¾ ins.

One of these plants is even being used in Britain for producing small studs known as boot protectors.

Sixteen plants to date have been installed in various parts of the world, including Great Britain, Australia, South Africa, Spain, Japan, Rumania and now Czechoslovakia.

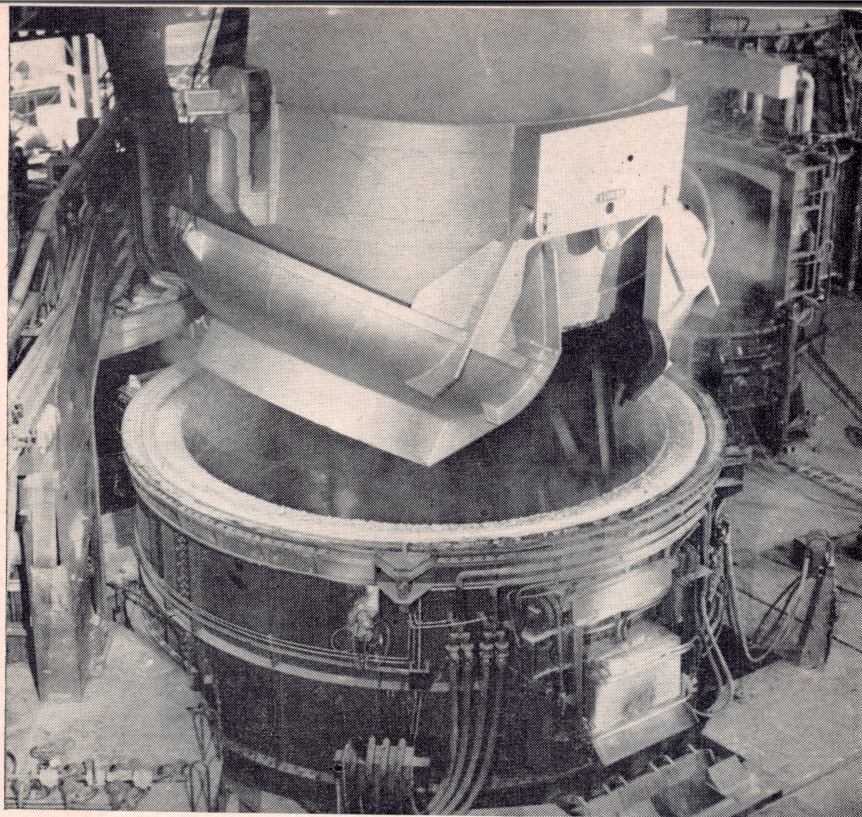
The heart of the system is a four-station rotary mould-making machine which governs the high productivity rate. With one operator alone, this machine can produce up to 480 boxed half-moulds per hour, or 240 complete boxes ready for pouring. The machine automatically fulfils every sequence of mould-making such as spraying the box, charging with sand, edgetucking, squeezing, removing surplus sand, stripping and depositing the box on to a belt conveyor for subsequent operations. The moulding machine is served by a number of ancillary appliances on a flow-line system including a rotary mould conveyor which conveys the mould box through the pouring station, automatically positioning each box in sequence for metal-pouring. The system also incorporates an automatic shake-out device for removal of used sand from the moulding box, and an automatic mixing and reconditioning plant. The whole system is controlled from an electrical master panel which pre-determines the sequence and timing of all operations.

The plant has been designed to eliminate the need for highly-trained operators as well as many of the arduous tasks previously associated with conventional foundry work.

A total of six operators is all that is needed on this system from mould-making to finished castings.

CALCULATING EYE An operator gives the camera a calculating look through a super magnifying glass before inspecting the thousands of tiny terminals of a Honeywell computer chassis. Each of these "bed of nails" backboards will hold the complex electronic circuitry that makes it possible for a computer to figure out, at millionth-of-a-second speeds, such diverse problems as the trajectory of a rocket to the moon or the balance of a bank account.





PROJECT SPEAR

The £11,500,000 Project Spear was completed at Rotherham early in 1965 at the Steel, Peech and Tozer branch of United Steel Companies. It brought into operation the sixth and final electric arc furnace to make it the largest electric melting shop in the world. It replaces 21 open-hearth furnaces. "The Times" described Project Spear as "one of the most adventurous and successful achievements produced in British industry in the past decade". Spear has raised the potential steel-making capacity of the S.P.T. works from 1,100,000 ingot-tons to 1,350,000 ingot-tons per year. The picture shows the charging of a furnace with scrap at the works.

ICI TO SPEND £7 MILLION

The Mond Division of ICI is to erect a new chlorine plant at Runcorn with an ultimate capacity of 200,000 tons of chlorine a year. The cost will be £7 million, and will include associated equipment for liquefying and storing the chlorine. The new unit will be brought into production in 1966.

The new plant will provide chlorine not only for the regular growth in demand from ICI customers, but also to feed the new plants announced in April 1965, when £12 million was earmarked for ethylene-based vinyl chloride monomer plants at Runcorn and Hillhouse and, subject to authorisation by the Minister of Power, £2 million for a pipeline over the Pennines to bring ethylene gas from the ICI site at Wilton in North Yorkshire.

In recent years the extensions to ICI's chlorine capacity have been achieved by increasing the output of existing plants. This process has now been carried almost as far as is practicable and any further extensions of capacity will be achieved by a series of new units of which this is the first.

ICI are also to double the capacity of their recently-extended raw titanium plant at Wilton, to meet the growing demand for this new metal. The cost will exceed £1 million.

A substantial part of the output of the Wilton plant is taken by Imperial Metal Industries Ltd. of Birmingham, a subsidiary of ICI, who are the largest European producers of semi-fabricated titanium. Much of the metal, both in its raw and fabricated forms, is exported.

Fabricated forms of titanium, with their excellent properties of resistance to temperature and corrosion combined with lightness and high tensile strength, are being used to an increasing extent in the construction of aircraft engines and frames. In addition to this major outlet, there has been a spectacular increase in the use of titanium outside the aircraft industry, particularly in certain types of plant where other metals cannot withstand the conditions.

ICI, the only European manufacturers of raw titanium, will use an improved version of the process they developed based on the reaction of metallic sodium with titanium tetrachloride.

APPRENTICE TRIUMPH

In the September issue of *New Future* we highlighted successes achieved by British apprentices in the 14th International Apprentice Competition. Readers will recall that the 28-strong British team won more medals than any other competing country. Together they gained 9 gold, 5 silver and 5 bronze medals.

Here is a complete list of the medal winners with their ages, the trades in which they were examined, and the companies where they are employed. Not one of them scored less than 85 out of 100 marks.

GOLD: Andrew J. Timmins, 19, Turning (age group 18-19), Skefko Ball Bearing Co. Ltd., Luton, Beds.; Richard C. Halsey, 18, Turning (age group 18-19), Skefko Ball Bearing Co. Ltd., Luton, Beds.; Keith Robley, 21, Foundry Moulding (age group 20-21), Distington Eng. Co. Ltd., Workington, Cumberland; Colin J. Steed, 20, Wood Patternmaking (age group 20-21), W. H. Allen & Sons Co. Ltd., Bedford; Christopher J. Haine, 20, House Wiring (age group 20-21), London Electricity Board, London N.W.1.; Graham Bromley, 19, House Wiring (age group 18-19), The East Midlands Electricity Board, Nottingham; Brian J. Cooper, 21, Stone Cutting (age group 20-21), George V. Williams & Sons Ltd., Bath; John Smith, 20, Painting and Decorating (age group 20-21), T. E. Cundy & Son Ltd., Leicester; Peter G. Johns, 20, Silversmithing (age group 20-21), Blunt & Wray, London E.C.1.

SILVER: Peter Nixon, 20, Constructional Steelwork (age group 20-21), Markham & Co. Ltd., Chesterfield, Derbyshire; Ernest K. O'Neill, 21, Electric Welding (age group 20-21), Babcock & Wilcox Ltd., Renfrew, Scotland; John S. Trusler, 21, Brickwork (age group 20-21), W. & C. French Ltd., Buckhurst Hill, Essex; Allen J. Fether, 21, Plastering (age group 20-21), Trollope & Colls Ltd., London E.C.2.; John R. Taylor, 21, Panel Beating (age group 20-21), Austin Motor Co. Ltd., Birmingham.

BRONZE: David A. Williams, 19, Milling (age group 18-19), Skefko Ball Bearing Co. Ltd., Luton Beds.; Roger F. Wright, 21, Sheet Metal Work (age group 20-21), G. A. Harvey Group of Companies, London S.E.7.; Geoffrey B. Frost, 19, Industrial Wiring (age group 18-19), Michelin Tyre Co. Ltd., Stoke-on-Trent, Staffs.; Roger A. Munt, 21, Radio & T.V. Repair (age group 20-21), The M.E.L. Equipment Co. Ltd., Crawley, Sussex; Colin W. Morley, 21, Plumbing (age group 20-21), Matthew Hall Mechanical Services Ltd., London, W.1.