

ELECTRICAL WIZARD**ENGLISH BOY'S GREAT CAREER****The Two Professors in a School in Philadelphia****THOMSON AND HOUSTON**

One of the world's electrical wizards has passed away in Mr Elihu Thomson.

He crossed the Atlantic as a Lancashire boy nearly 80 years ago, his father settling in Philadelphia. On leaving school Thomson began life in a commercial laboratory, and eventually became a professor in his own High School. In course of time he founded a company and joined forces with Dr Houston, another professor in the same school, and these two were the pioneers of a firm now known all over the world as the Thomson-Houston Company.

A Giant Stator

Their works at Rugby is one of the industrial wonders of England, sending out electrical machinery all over the world. A few years ago an Indian steel company cabled to the British Thomson-Houston firm for a motor to run at 94 revolutions a minute and to take a load of nearly 19,000 h-p. It was the biggest machine of its kind ever ordered in this country and had to be shipped in nine weeks, and it was designed, built, tested, and on the way to the docks within 50 days, the railway company having to lay new lines through one London station to make room for the width of the stator as it overhung its truck.

Man is a pigmy beside many of the motors and their stators (or frames) as they stand in various stages of construction in the immense Thomson-Houston buildings at Rugby. There are 70 buildings, all erected on this 100-acre site since 1901. Along the avenues and into the buildings run six miles of railway lines, and petrol and electric trucks help the steam locomotives to transport the goods. There are run-about cranes on the ground, while overhead are 120 electric cranes; the biggest able to lift 60 tons.

Wonderful Machines

Two buildings are 1000 feet long each, the more imposing being devoted to turbines. In it machine tools shape steam turbines and their blades, compressors, and similar machines. Here we can watch a 50,000-kilowatt turbo-alternator being tested, a boring machine at work on a casing 18 feet wide, or a casting of 13 by 12 feet under the plane. The boring and planing machines here are as big as any in England.

The other huge building is for the gigantic transformers of the National Grid, for electric motors, generators, mercury arc rectifiers, each machine travelling from one end of the building to the other in course of construction.

Facing the turbine factory is the foundry, unique in its three storeys. Castings up to 64 tons are made on the ground floor, while castings as light as half an ounce are made in the rooms above. Similar contrasts are to be found in the punch shop, where the presses, some of them working at 12 strokes a second, have a total capacity of 450,000 stampings an hour. The biggest punching weighs 650 pounds, but 200 of the smallest are required to make an ounce.

A Symbol of Man's Progress

Famous all over the world for the brilliant ideas and ingenious devices evolved within its walls is the Engineering Laboratory. In close touch with the leading scientific institutions and laboratories, its research staff, representing every branch of physics, investigates every kind of problem in electrical manufacture.

These vast works at Rugby are a symbol of Man's progress, producing the machinery which enables him to harness for his use, on a big scale or on a small, the mysterious force of which the secret was revealed by Michael Faraday only a hundred years ago.

HOPE DEFERRED**Cotton Dust Goes on Poisoning**

The mills of Parliament grind slowly; they do not grind fast enough for the cotton mills.

Dust in cotton mills is a very important thing to the workers, because it gets into their lungs. It is not so deadly as lead dust, which the Home Office took in hand years ago (though each year there are still cases of lead poisoning caused by it), but it often incapacitates the mill hands.

Nearly a year ago representatives of the workers went to the Home Office to ask for a scheme of compensation for these poor people. The Home Secretary promised a Committee to inquire. It has not inquired, because there is not yet a Committee. No wonder the Lancashire workers grow impatient. A year is a long time in the life of a sick man, though it may seem short to the Home Office.

A BABOON AND THE FLAG

Some time ago a Natal baboon which had been banished by its fellows put itself on the map, the C N map.

The baboon operated near Spion Kop of warlike memories. News of it seems to have travelled to the Northern Transvaal, where another giant baboon, if it is not the same one, is making itself a terror in the Waterberg district among the farmers.

Its latest exploit was of a rather doubtful patriotic display. It stole a Union Jack from a church and waved it defiantly from 20 paces distance at a farmer. The baboon stands nearly five feet high, so the farmer took no steps at the time. But other farmers have decided that the baboon cannot shelter itself under the British flag, and are in active, but as yet fruitless, pursuit.

The baboon seems to practise the tactics of De Wet in the days of Lord Kitchener.

ITALIANS BEATEN IN SPAIN

After struggling to secure the northern road from Madrid to Valencia for five days the Italian Army fighting for the Spanish rebels has met with a serious defeat.

In spite of its tanks and other modern weapons Mussolini's army, fighting in Spain against the Spaniards, appears to have been routed by the aeroplanes of the Government, whose forces succeeded in advancing five miles and capturing much of the enemy's equipment. To the south of Madrid too, where the rebels are closer to the city, their cavalry is said to have met with a severe defeat.

BRITANNIA RULES THE WAVES

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our responsibility for it. In the words of Sir Samuel Hoare, their naval rivalry with us, and their suspicion of our ends, has gone for ever.

That sentence was only a fragment in the First Lord's speech, but it seems to us that the future may prove it the most important, because it foreshadows a day when the great Anglo-Saxon peoples will be the guarantors of the world's peace.

Such is our hope, and, awaiting the realisation of a wider compact between all nations, we believe with Sir Samuel Hoare that, the world having been filled with fear, the first step to remove the fear has been taken with the creation of a strong British Navy which may, as Sir Samuel Hoare so finely said, repeat in the 20th century its service to the 19th, and secure a hundred years' freedom from world wars.

UNDER THE SWASTIKA
Germany's Four-Year Deathrate**250,000 LIVES MISSING**

Germany is paying a high price for the policy of guns instead of butter. It is paying in the health and lives of German people.

Since Herr Hitler came to power four years ago the deathrate has gone up ten per cent.

Nearly a quarter of a million Germans are dead who should be alive if in these four years the deathrate had not gone up beyond all scientific expectation.

It is not that Germany is careless of her population, or that Herr Hitler is not alive to the policy of increasing it. His appeals to all to keep it up by increasing the family is sufficient to show it.

Nor is the Fatherland neglectful of the health of its wage-earners, for 18 millions of them, industrial toilers and black-coated office workers, too poor to have private doctors, are on the panel.

Jewish Doctors Dismissed

But the panel is not as efficient as it was. *All the Jewish panel doctors have been dismissed, and their places are often taken by less capable men.* Hospital staffs organised on trade union lines have suffered in a similar way. Lastly, the Health Insurance Funds, instead of having deficits made up if they were unequal to the cost of medicines and attendance, have now to show a profit.

Consequently dangerous economies have been foisted on the Health Insurance organisation. The cost of medicines has been cut down. So have the days a patient may be kept in hospital. An average of a day in hospital has been lost to the worker who is ill enough to be sent there. The worker is paying with the risk of his life for the guns as surely as if he were facing them.

Explanations are more plentiful than butter—or medicines. One is that less money is spent on each case because the patients have a lessened will to live. They may think that life in straitened Germany is not worth while. It may be that even perpetual drilling and the iron-bound political system are killing off the middle-aged. "We who are about to die salute the Swastika."

A REMARKABLE ESCAPE

Jack Thompson, a dock worker of Preston, has had a remarkable escape.

He was helping to load wood pulp on a motor-lorry at the dock side, Preston, and the hook of his belt in some strange fashion caught in the chain of the crane which was being used in the loading operations. The crane swung him into the air, and he was in grave danger of being dashed against the warehouse wall.

Fortunately the crane man, with remarkable presence of mind, put the hoisting lever to full-speed as the great crane swung round with its human burden, and with only an inch to spare Thompson was hoisted clear of the warehouse wall. Unfortunately, as he was being lowered his belt broke and he dropped ten feet to a wall.

THE PALACE IN THE SCRAP-HEAP

Soon the fabric of the Crystal Palace will be only a picture in the memory.

The towers, a landmark to Londoners for four reigns, the vast arch glittering in the sun, are now no more than wreckage. The wreckage, 20,000 tons of cast and wrought iron, is at once to be cleared away. The tender has been accepted, the work has almost begun. When all that is valuable has been gathered up the site will be cleared.

Twenty thousand tons of iron is a large figure, but not an astonishing one. It is as astonishing that all that the Crystal Palace was, and meant, should be reduced to so little.

LITTLE NEWS REEL

Coaley in Gloucestershire claims to have the oldest working blacksmith in the land. He is John Smith, 92.

No bells ring now from Wakefield Cathedral; up in the belfry they hang silent, for the death-watch beetle has been at work.

Mr Thomas Hodgson has retired after ringing the bell of York Minster for 60 years, but after 60 years Mr James Potts is still singing in the choir of Hexham Abbey.

Lord Glanely has divided £30,000 among twenty-four institutions as a Coronation gift.

A mysterious whistling in one of the court rooms at the Old Bailey was traced to a microphone used by a deaf man.

With heavy seas running, a man was the other day transferred to a cargo boat from a German liner for an operation.

The Lord Mayor's fund for the George the Fifth Memorial has reached £565,000.

For seven years the boys and girls of Myddle Church of England School, near Shrewsbury, have had a team of handbell ringers, trained by the headmaster, Mr Percy Porch.

GOOD VALUE FOR IDLE MONEY

A London publishing firm has thought of an unusual way of helping hospitals.

They informed the Middlesex Hospital that twice a year, between the busy publishing periods, they have a considerable sum of money lying idle, and offered it on loan without interest.

If they put it on deposit at a bank they would get very little interest, but the hospital could set it against an overdraft, which would make a considerable difference to their finances. The hospital have accepted the offer.

THE WAY OF PEACE

It may be easier to find the way to the heart of an alien nation through its literature, pictures, science, medicine, and everyday habits than through the despatches of statesmen, who, even when they pursue peace, must speak behind the guns with which they are overloading our civilisation.

Lord Allen of Hurtwood

THINGS SEEN

Two polar bears held up in the snow in Yorkshire.

The wave of the Severn bore five feet high, floodlit by night.

Eighty candles on a birthday cake for Lady Aberdeen, given by Canning Town Women's Settlement.

Water being carried from Wellingborough to Finedon, where a valve left open during repairs drained the town's supply.

A thrush's nest in Hampshire with two eggs last week.

THINGS SAID

Without doubt the conscience of England as trustees in the Mandated Territory of Tanganyika and the Colony of Kenya can rest serene. The Aga Khan

We are strong enough to repel single-handed any attack on our territories.

Russian Ambassador

I have already had notice of one party of 10,000 people coming to St George's this year.

Dean of Windsor

I don't see why English hotels should not be as good as the Continental hotels.

Lord Horder

In less than a week from England we are in our limousine near the last frontier station in Nigeria.

Mr H. E. Symons

A free Press and a free Parliament are the things on which a free people depend.

Lord Halifax