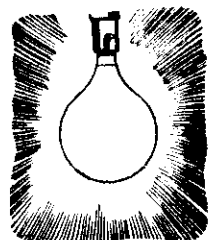


DID YOU HEAR THIS?

Extracts From Recent Talks

Ediswan, The Lamp

THE first practical electric lamp was made by a British physicist, Professor Joseph Swan, in 1876. His invention was acclaimed with much enthusiasm, but 20 years later gas was still in general use for illumination. Swan's lamp was a good one, but he provided no effective way of bringing electric power to it. This was done by Thomas Edison, who was, by the way, recently placed first in a popular vote on the query: Who was America's greatest scientist? Hearing about Swan's lamp he engaged 100 helpers and in a few years developed an incandescent lamp of his own. This was no better than Swan's. Edison's great contribution was to provide central power-generating



stations connected by wires for the supply of electrical energy to buildings, factories and houses. This not only made electric lighting available and desirable, but paved the way for the general use of other electrical devices—toasters, radiators, radio, washing machines, and curling irons.—(*"Atoms in Action to Serve Mankind,"* Dr. C. M. Focken, 4YA, September 3.)

A King Without Coin

AS a result of the American wars, then, liberty began to look more like a practical proposition to many Frenchmen; but it was not the lovers of liberty who ultimately made the French Revolution inevitable. The old French monarchy fell simply because it failed to do its obvious duties. The first of these was to make the government pay its way. The king's income came nowhere near his expenditure, and this fact became so well known that the bankers of Paris began to refuse to lend him money. On one famous occasion he had not enough money in pocket to take his court and family away for the usual summer holiday. The second great problem was the new ferment in men's minds. Something at least had to be done about the rising tide of public opinion which was clamouring for reform. Actually, the two problems were up to a point the same. The king's bankruptcy would have been solved by a reform in the taxation system. Taxes were graduated in those days, but in the opposite way to ours they were paid by the poor, while the rich went free. What was needed, therefore, was that the rich should give up their privileged position and pay part of their fair share.—(*"The French Revolution,"* Professor F. L. W. Wood, 2YA, September 1.)

Crippen's Arrest

AT this time there was a ship called the Montrose bound from Antwerp to Montreal. She was a very slow moving passenger ship. The Captain's attention had been specially drawn to a father and son, who were among the passengers. What had attracted particular notice, was the fact that the son had a curious habit of squeezing his father's hand in a most affectionate manner. Upon hearing the description of the missing couple over the air, the Captain began to suspect that these were the two fugitives sought by the police, and he decided to subject them to closer scrutiny. As a result of this the Captain became quite satisfied that the pair were indeed Crippen and his typist, now masquerading as father and son. Scotland Yard was at once notified by wireless. A police inspector immediately took passage in the Laurentic, a fast passenger ship,

which, despite the start of the Montrose, would arrive in Canada ahead of it. The whole world now watched this thrilling race across the Atlantic between the two liners. The only people who were not aware

Waste

WHEN we waste commodities, such as bread, there is a double waste. We waste not only our own money but we waste the work and effort of a number of people who have been responsible for growing the grain, harvesting, milling and carting it—and of the bakers who have made the bread. A study of this very question was made in the United States of America during the last war. In a very careful investigation a nation-wide survey was made and the average amount of bread wasted in every household daily was discovered. The total wastage was millions of bushels of wheat, which represented the cultivation of thousands of acres of land, tilled by an army of men, driving tractors which consumed gasoline or mules which consumed feed which had to be grown for them.—(*A.C.E. Talk*, 4YA, September 3.)

of the race were the passengers on the Montrose itself. The Laurentic won the race easily, and before the Montrose berthed in Canada the police were aboard her, and arrested Crippen and the girl. It was the first time in history that wireless had been used as an aid to criminal investigation.—(*"Famous Cases,"* by a Dunedin Barrister, 4YA, September 3.)

Lord on Ladder

SOON after the outbreak of the last war I attended a meeting of New Zealanders in England. We (some 200 strong) gathered together in a very large room in one of London's hotels. Sir Thomas McKenzie explained that the main object of the meeting was to form a New Zealand Women's War Workers' Association in England, and also to raise funds to carry on the good work. After announcing the news that the New Zealand Government had made an initial contribution of £25,000, Sir Thomas called for subscriptions from amongst those present. I think I'm right in saying that the response netted an average of £100 a head. The association was duly formed and some



New Zealand men lent helping hands with the heavier jobs. I dropped in one day to their headquarters and discovered a shortish man on the top of a ladder stacking packages away on high shelves. When he came down for another load I noticed that he had a monocle in his eye. This struck me as being rather unusual for a man in dungarees, but I soon discovered that he was none other than Lord Plunket, one-time Governor of New Zealand.—(*"Just Women in Wartime,"* by Major F. H. Lampen, 2YA, August 28.)

Lower Light Bills

PEOPLE who have not thought deeply enough sometimes point reproachfully to the low efficiency of the modern incandescent lamp. Only 9 per cent. of the energy supplied is converted into light.

The rest is wasted as heat. They may have heard claims that the efficiency of a flashing firefly's light emission is 96 per cent. They conclude that scientists, for all their work and talk, are still very far from approaching Nature's methods for light production. Like many good stories, this one is more interesting than true. That there is scope for vast improvement in the efficiency of lamps is undoubtedly true. Let us rejoice that there is a possibility that our future light bills may be further reduced. The figure quoted for the firefly's efficiency is based on an unjustifiable assumption and is certainly too high. Yet we may learn something from the comparison. The light from fireflies and glow-worms is approximately yellow-green, to which our eyes are most sensitive. Also they are apparently "cold" sources. By years of arduous toil, physicists have discovered some of the secrets of atomic structure. One consequence—by no means the most important—has been the development of a new type of light source. This comes nearer to the firefly than previous ones. By judicious sharp-shooting with electrons the atoms of a cool vapour are caused to emit light. In this process little energy is wasted.—(*"Atoms in Action to Serve Mankind,"* Dr. C. M. Focken, 4YA, September 3.)

What's Yours?

SOME people will frankly admit that once any bread is over a day old, bread and butter loses all its interest for them. So they buy a small quantity of fresh bread each day and any that is left over must be used up in various ways or given to the poultry or the animals. There is no thrifty self-denial about people who indulge themselves in this way. In a way they are alcohol-addicts—for it is largely alcohol which gives new yeast bread its characteristic flavour. Really fresh yeast bread contains about $\frac{1}{4}$ to $\frac{1}{2}$ of 1 per cent. of alcohol. That is to say, there is about as much alcohol in 40 2lb. loaves as there would be in an average bottle of port wine. This alcohol evaporates, and by the time the bread is a day old the flavour is gone—but the food value of the bread remains and its digestibility is very greatly increased.—(*"Uses for Stale Bread,"* A.C.E. Talk, 4YA, September 3.)



The Last Party

AT this stage, the idea of ridding himself for all time of this encumbrance of a wife whilst retaining her worldly goods must have become Crippen's main thought in life. He was soon to put these thoughts into practice. On January 18 he bought five grains of a certain poisonous drug from a chemist. A medical dose of this drug was a one-hundredth to a two-hundredth of a grain. He therefore bought enough of the drug for five hundred to one thousand doses. In fact, the chemist had to send to the wholesalers to enable them to supply such a large quantity, but they thought nothing of the order, as Crippen frequently bought poisonous drugs to use in the manufacture of patent medicine, and so they regarded the request as quite a legitimate one and in the ordinary course of business. Now the Crippens had two particular friends, named Mr. and Mrs. Paul Martinetti, and they were in the habit of dining with these people regularly each week. On January 31 they dined together at Crippen's house. It turned out to be the last time. A jolly evening was spent together, but Mr. Martinetti became ill during the course of the evening, and he and his wife went home early. From that moment onwards nobody ever again saw Cora Crippen alive.—(*"Famous Cases,"* by a Dunedin Barrister, 4YA, September 3.)