

Electricity in Our Daily use. -

Of all kinds of energy, electricity has been of the most common use to mankind. In this scientific age when man is trying to have pleasure and luxury not by means of manual labour, but by mechanical means, electricity is playing the most prominent part. The different ways in which electricity can be used and the varieties of work which electricity can do are certainly unlimited.

First of all, we must consider the simple and the easy way by which electrical energy can be conveyed from one place to another, regardless of distance. And this is the reason why electrical energy has been given preference to heat-energy, (by which I generally mean steam) which is not at all possible to be conveyed to a distant place. It is quite possible that any kind of energy can be converted into any other kind of energy. But the task is not so easy with other kinds of energy as it is with electricity. We are getting heat, light, magnetism, sound and mechanical energy from the same source of electricity with the commonest possible mechanism.

As heat-energy we find it in the electric furnace, the importance of which from an industrial point of view can scarcely be over-estimated. We are now using electric stoves for our common purposes. Dhobies have replaced their old-fashioned irons by electric irons.

In the cold season we keep our rooms warm by means of electric radiators.

Bombardment of mines, whether for obtaining ores of metals or for warfare is now-a-days done by electricity. The big cannons are fired by means of electric battery.

As light-energy we find it in the form of electric glow-lamps and arc-lamps which have made the use of oil and gas for lighting purposes almost obsolete by reason of its cheapness and convenience. In Sydney lighthouse the energy which is capable of developing a light of 125,000 candle-power is obtained from an electric dynamo.

In the form of magnetic energy it is found in the commonest electromagnet which offers great facilities to medical men. The magnetic property of electricity is also made use of in electric telegraphy which conveys the world's news from one end of the earth to the other end.

As sound-energy we find it in electric horns which are so largely used in our motor-cars and boats. In our daily use it serves the purpose of messengers in electric telephony.

On railway platforms porters have given way to electric trollies for the conveyance of luggages. Electric sweepers or dust-absorbers have made their appearance in the market. In America small sewing machines and many other small household machines are driven by electric power instead of manual labour. In the vast cotton-fields of America nearly everything is done by it. Wireless telegraphy and telephony owe their origin to electricity. It is with the help of electricity that scientists are trying to send messages to other worlds. Even it has become possible to send exact representations of photographs to distant places; this is certainly a step forward beyond wireless. Electric railways and mechanical signalling in railways by means of electricity are now going to put steam locomotives and automatic signalling almost out of use. The use of electricity in electrolysis for preparing samples of pure metals and different kinds of chemicals for commercial purposes is certainly unbounded. We find it in electroplating, electrogilding and electrotyping.

X-ray which is so largely used for surgery has also come to be used as a scientific detective in trade and industry. The minutest flaw within a metallic body which is quite impossible to be noticed by any other means can easily be detected by means of X-ray shadow. The presence of an insect inside a fruit is, sometimes detected by the same process. Even it has been recently discovered that fruits can be preserved against such insects by exposing them to X-ray. This process is certainly of great importance to fruit-importers and producers.

In future it is hoped that electricity will answer to our everyday need.

SATYAMAY BANDYOPADHYAY

I. Sc. Class, Section 'C'.
