

Text 1

ELECTRIC CURRENT

The electric current was born in the year 1800 when Volta instructed the first source of continuous current. Since that time numerous scientists and inventors, have greatly contributed to its development and practical application. As a result, we cannot imagine modern civilization without the electric current. We can't imagine how people could live without the electric lamp, without vacuum cleaners, refrigerators, washing machines and other electrically operated devices that are widely used today. In fact, telephones, lifts, computers and trains, radio and television have been made possible only owing to the electric current.

Some people are more familiar with the various applications of the electric current in their everyday life than they are with its numerous industrial applications. However,



electric energy finds its most important use in industry. Take, for example, the electric motor transforming electric energy into mechanical energy. It finds wide application at every mill and factory. As for the electric crane, it can easily lift objects weighing hundreds of tons.

A good example which illustrating an important industrial use of the electric current is the electrically heated furnace. Great masses of metal melted in such furnaces flow like water. Speaking of the melted metals, we might mention one more device using electricity that is the electric pyrometer. The temperature of hot flowing metals can be easily measured owing to the electric pyrometer.

These are only some of the various industrial applications of the electric current serving us in a thousand ways.

Active Words and expressions

application - використання

inventor - винахідник

as for - стосовно

laboratory – лабораторія

current - струм

to measure - вимірювати

device - прилад

scientist - науковець

electrical - електричний

to serve - служити

electricity - електрика

temperature - температура

furnace - піч

to transform - переробляти

Exercises

1. Translate the following sentences using a participle:

A. 1. The student is translating an article on refrigerators. 2. The student has translated an article. 3. The article is translated by the student. 4. The article is being translated by the student. 5. The student translating the article is student Novikov. 6. The article translated by the student is difficult. 7. The translated article is devoted to electrical furnaces. 8. Translating an article,

the student used a dictionary. 9. Having translated the article, the student gave it to the teacher. 10. Having been asked to translate the article, the student translated it with great interest.

B. 1. Speaking of the electrically operated devices, one can mention the refrigerator. 2. Having mentioned the name of Volta, the teacher spoke about his invention. 3. The first source of continuous current constructed by Volta, appeared in 1800. 4. Hot flowing metals are often measured by the electric pyrometer. 5. The pyrometer used in industry is a device measuring temperature. 6. The pyrometer showing the temperature of metals melted in furnaces is also an electrical device. 7. Making this instrument, we could not do without a machine operated by electricity. 8. Going along the streets, one can see running trams, trolley-buses, buses and cars. 9. Being widely used in industry, electrical motors are also used in every home.

2. Translate the following sentences:

1. Електричний мотор, який перетворює електричну енергію на механічну, використовується у повсякденному житті. 2. Кажучи про електричний струм, ми можемо згадати ім'я Вольта. 3. Електричний пірометр вимірює температуру розплавлених металів. 4. Попрацювавши на фабриці, мій товариш вступив до інституту. 5. Вимірюючи температуру гарячих металів, студент користувався пірометром. 6. Вимірявши температуру метала, ми почали вимірювати температуру води.

3. Form four sentences using the words given below:

Model: lift, the, heavy, can, electric, objects, crane.

The electric crane can lift heavy objects.

1. finds, industry, energy, in, application, electric, wide, a
2. does, study, he, at, not, the, institute
3. day, use, every, do, devices, you, electrical,?
4. the, theatre, go, to, We, yesterday, not, did

4. Put all possible questions to the following sentences:

1. The electric motor finds wide application in industry.
2. Lomonosov is the great world famous scientist.
3. The students of our technical school were at this plant last week.

5. Form six sentences combining suitable parts of the sentence

- | | |
|----------------------------|---|
| 1. The electric current is | 1. the energy of position |
| 2. Kinetic energy is | 2. electricity at rest. |
| 3. Static electricity is | 3. the flow of moving electrons. |
| 4. Potential energy is | 4. the energy of motion. |
| 5. The direct current is | 5. a discharge of electricity. |
| 6. Lightning is | 6. the flow of electrons in one direction |