$K_{O\!A}$ УГПС – 20.00.00 ТЕХНОСФЕРНАЯ БЕЗОПАСНОСТЬ И ПРИРОДООБУСТРОЙСТВО

Тема 4. Промышленные технологии (20.02.04 Пожарная безопасность)

a) Read the text about the history of the fire extinguisher.



Everybody knows how a fire extinguisher looks. The red canister has become iconic and instantly recognizable even with children. But how did it become what it is today? And what did it look like before?

The first patented device that we can call a fire extinguisher was invented in 1723 by an English chemist Ambrose Godfrey. It was basically a bottle on a wall with fire-extinguishing liquid and gunpowder. If a fire broke out, the powder inside exploded and the liquid put out the flames. Godfrey called it "extinguishing fires by explosion".

The first fire extinguisher with a mechanism similar to a modern one appeared in the late 19th century in France. It was a canister with a mixture of water and a special chemical. To use it, you needed to break a bottle with acid that was inside it. The acid caused a chemical reaction that pushed water up through a hose and onto the fire. In 1880 an American named Almon Granger patented an improved version of the same device in the United States.

Key words:

- fire extinguisher огнетушитель
- recognizable распознаваемый
- patented запатентованный
- liquid жидкость
- gunpowder порох
- to break out (about fire) вспыхнуть
- mixture смесь
- acid кислота
- **improve** улучшить
- **explode** взрываться
- explosion взрыв

And finally, in 1904, a Russian chemist and engineer Alexander Loran invented fire fighting foam and a fire extinguisher that used it. This was the general design that we still use now. Over the 20th century people found ways to use different, more effective chemicals and mechanisms, but the basic structure remained the same. Today you can find fire extinguishers in every building, and they protect us, allowing us to quickly and easily put out fires.

b) Speak about the following:

- How did the fire extinguisher improve fire safety in everyday life?
- How do you think the evolution of the fire extinguisher shows the evolution in chemical and engineering knowledge?
- Do you think the fire extinguisher will evolve further with new technology? If yes, how?
- c) Find information about an industrial fire that happened in your region, choose one and prepare a short speech about it. Try to mention the following:
- Why did the fire break out?
- Could it have been prevented? If so, how?
- What measures were taken to fight the fire?