ing from Time to Time from the Retort, then the Work is finished. And you may, with Feather, gather the Fire together, or scrape it off with a Knifc, where it sticks».

And such, in a nutshell, was the history of phosphorus discovery.

К. А. Федулова

INFORMATION AND TECHNOLOGICAL COMPETENCE OF A FUTURE TECHNICIAN (PROGRAMMER)

In the recent decade in Russia there have been serious changes in evaluating such concepts as «competence» and «skills». It may be explained by severe requirements of the employers and the demand on the labor market which needs in competent specialists who are able to perform efficiently under new dynamic social and economic conditions.

This approach is accepted in most developed countries and is directly connected with a transition period (i.e. transition to the system of skills).

The notion of «competence» in the dictionary is defined as «having the knowledge that lets you judge about something». This notion, according to I. A. Zimnyaya, includes not only cognitive but also motivating, ethical, social and behavioral components. A skill is a category, belonging to the sphere of the relations between knowledge and practical activity of a person.

Having analyzed the opinions of scientists (J. Raven, E. F. Zeer, I. A. Zimney, A. K. Markova, V. V. Serikov and others) we consider a skill to be a subjective feature of a personality, allowing people to go their own ways. A skill is included in competence.

We define skills as requirements to a person which are reflected in his (or her) readiness to use the acquired knowledge in real life for solving different problems.

Looking into the matter of professional competence A. K. Markova defines its features: 1) competence is not the level of education only; 2) competence is a combination of personal qualities allowing people to go their own ways; 3) a person's activity shows his (or her) competence; 4) competence is a feature of a separate person and reveals itself in the result of his (or her) activity.

Thus, professional competence can be defined as a feature allowing people to go their own ways, ability and skills necessary to perform certain labor functions, estimating the results of their performance.

At present one of the problems of updating the contents of vocational training is the problem of defining the necessary skills, which will correct the contents of the vocational training. It includes a lot of points: teaching staff; the opinion of potential employers, etc.

The skills of a future programmer include:

• readiness to develop, modify, adapt and accompany standard technological automated handling of information and automated information systems (AIS); to use technologies of dealing with the portioned information systems; to select, install, adapt, accompany and use standard software, as well as AIS hardware; to provide validity and protection of information in automatic processing, as well as to provide access to information resources in AIS;

• ability to develop and work with modern AIS; design the systems safety of computer systems and networks; work with new automated systems based on the covering documents.

Information-technological skills of a technician are considered by us as a collection of the general ways providing productive performance.