



**MOSKALENKO**

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**ABOUT THE TECHNOLOGICAL CHAIN «MAN-MACHINE-ANIMAL»  
(THE MEMOIRS)**

**Summary**

The memoirs cover the pages of my life that relate to my passion for animals (cows) and the study of the human-machine-animal animal chain, in particular the use of animals (cows, oxen) in the technological processes of agricultural production as a tax. The mechanized process of machine milking of cows by milking installations of various types and devices on dairy farms is considered. A lot of attention is paid to the executors of the milking process of cows, the masters of machine milking (operators). At the present stage it is recommended to use milking installations of the parametric series for dairy farms of different sizes.

Technological indicators that characterize the «human-machine-animal» system were determined by analyzing the process of milk production on a cattle-breeding farm, timing observations and fixing the performance or non-fulfillment of necessary operations during milking. System performance indicators: the completeness of the discharge or the amount of residual milk in the cow's udder, the rate of milk excretion (milking speed) or the total crocking time were combined into one generalized indicator.

Based on the bank of timing data on the study of the process of milking cows in production conditions, an analysis and assessment of the adequacy of the «human-machine-animal» system was carried out.

At manual milking the master (milkmaid) directly interacts for a long time (about 10 minutes) with one cow, influences it by directed actions, due to which favorable conditions for milk elimination are achieved.

At machine milking, between the master (operator) and the animal, a rigidly actuating mechanism is wedged, which took on the main energy function of the master (milkmaid) – extrusion, which the latter performed during manual milking.

In comparison with manual milking, the master (milkmaid) has the ability to service other cows, perform preparatory and final operations at a time when one or two cows are issued by the apparatuses. This makes it possible to increase the productivity of labor, but at the same time to improve the work of the master (milkmaid), because there are not two or three information links in the system, as was the case with manual milking, but several times more.

The completed complex of studies allowed us to formulate the initial assumptions and determine the perimeters of the functioning of the biotechnical link for removing milk from the udder of the animal, which makes it possible to apply them in the development of machines and equipment for milking cows.

***Key words:*** *man, machine, animal, milking plant, milk.*