UDC 631.3

# SOME IMPROVEMENT TECHNOLOGY OF MILKING COWS IN MILK PIPE

***L. Kormanovskiy***

In recent years much has been done by scientists on the automation of milking on the milking installation such as "Herringbone" based on electronics. It worked out a reliable system of identification of animals, a clear display in any room of the animal milking machine, automatic stimulation of the beginning and end of milking. The system provides a display in real time on the display control unit milking "number of the animal," the amount of the milk, milking time, the intensity of milk and milking mode (Start - stimulation, milking, dodaivanie, stimulation off the milking machine), graphics of milk each animal and Protocol entire milking herd. However, most of the cows milked in the milk. It is also used elements of automation. The milk invented and used for milking cows for about a hundred years. A lot of it is improved. At the same time a number of issues remain unresolved.

**The purpose of research** - to improve technology in the milk milking cows.

**Materials and methods of research.** There are times when operating the milking machine in the milking process and turbulent behavior of the animal falls to the floor and the vacuum sucks the dirt, mud and manure in the milk, and then into the tank with milk. Milking machine operator can not always keep up with it and promptly turn off the milking machine. So it turns off-grade milk and causing great economic damage. Further, the slow preparation of the operator of the udder of an animal to the milking - washing of warm water, a defective manual massage does not provide a sufficient allowance of milk, it is a sluggish process of milk, milking delayed. Furthermore, not all udder quarters milked simultaneously and those which milked earlier exposed milked dry, no milk, and continue sucking ticks that causes disease cow mastitis.

In addition, as you know, the work of the milking machine must be strictly consistent with the secretory activity of the cow, and regulatory processes

molokoobrazovaniya of milk. The first step is to provide a full allowance of milk - filling teat milk.

Time from receiving an external signal (undermining the udder) to active allowance is about 45 seconds. During this period, should be performed on all the preparatory operations of the udder and the milking machine is connected. This is particularly important because hormone - oxytocin, highlighted by the pituitary gland into the blood, there is a short time, then it collapses and ceases to operate. Therefore, preparatory operations - the substitution of the udder, wiping it, and massage Forestripping first streams of milk, including the milking machine and putting into operation the teat cups on the nipples should be performed no more than 60 seconds. This requirement is often disturbed and it is impossible to fill. In addition, the uncomfortable posture of the operator - in the process of connecting the device it is in an inclined position, holding the unit weight of 4 kg at arm's length under the udder of an animal, the other hand he had to pick up another glass and get on the teats of the udder of the animal. All this creates a lot of stress to the operator and tighten the connection time.

**The results of research.** In order to address these major shortcomings scientists research and production association "Femax" VIESH developed and proposed sacral stimulant allowance milk lock the teat cups. Fig. 1 shows the general scheme of the stimulator and lock the teat cups, in Fig. 2 shows a teat cup holder.

Sacral Stimulator allowance milk fixation teat cup consists of a metal arc 1 of the teat cups 4, 3 half-ring, connector height adjustment cup holders 5, valve 6 in each teat cup 2, a vacuum shut-off from the nipple at the end of milking.

Powered sacral stimulant allowance milk fixing the teat cups as follows. Milking machines are on the washing in the dairy department, there are located metal arc with the holders of the teat cups. The operator takes the milking machine and starts the teat cups in the holders of half-ring of the teat cups, the magnitude of the gap in cut rings greater than the thickness of the side suction nozzle teat cup, and half rings of a diameter greater than the diameter of the teat cup, but less than

the diameter of its tip. Therefore, the glass is free to move up and down in a semicircle, without going beyond it. Packaged so two milking arm operator hangs over his shoulder and moved to the milking room, which places them in the vacuum line of the group of cows. After preparation of the next cow - washing of the udder and massage, the operator takes the manipulator for the arc and wears (put) on the animal's back in the region of the sacrum in such a manner that the holder 4 is brought under the udder of the animal and adjust its height connector 5. Since the operator both hands free, he sdaivaet first trickle of the two rear teats and milking connects the two cups. The same makes and with the front teats. There is another option. If the operator is located on the right side of the animal, it is first sdaivaet two left and milking the teat cups connects the two left and two right and then simultaneously connects the two right glass. Thus, the milking machine in the short term will be connected and put into operation.

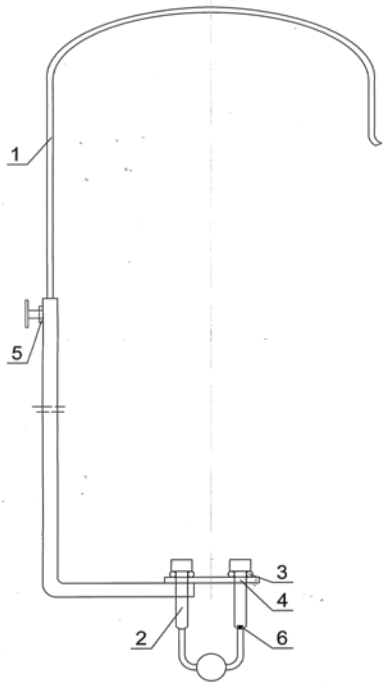


**Fig. 1. General scheme of a stimulant and lock the teat cups:**

1 - metal arc; 2 - teat cup; 3 - semicircle; 4 - the holder of the teat cups; 5 - connector height adjustment cup holders; 6 - Valve

The valve in the teat cup and the milk floats enters the collector. After milking the valve sits in the socket, disconnecting the nipple of the vacuum glass slides with the nipple sits in a semi-circle 3 and 4 of the left upright. The same happens with the other two cups.

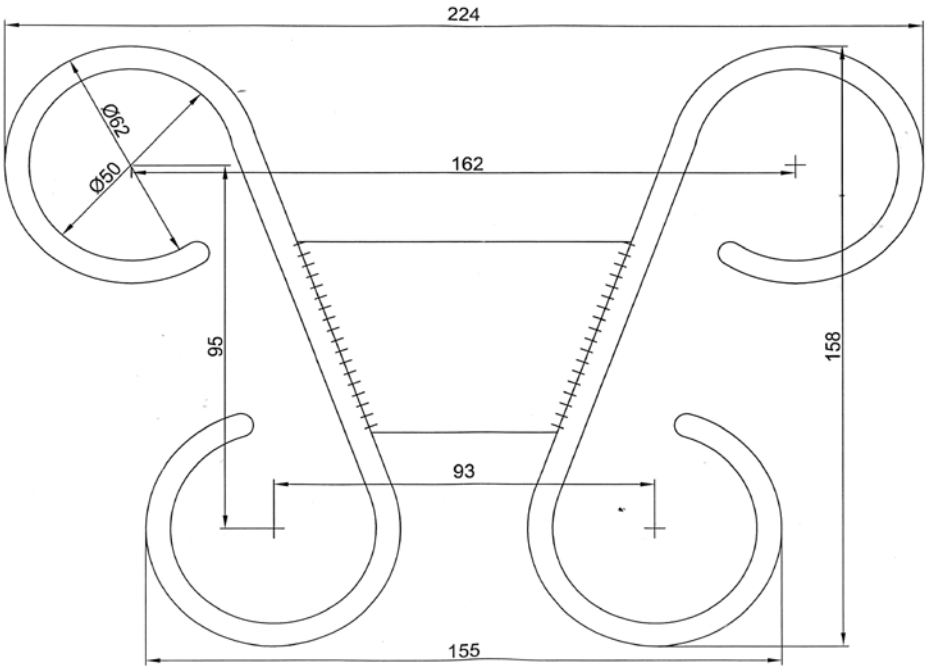


**Fig. 2. The holder of the teat cups**

## Conclution

A sacral stimulant allowance milk fixing the teat cups containing udder connected to the teat cups with valves. The stimulator is designed as a metallic arc with a height adjustable connector. The upper part of the arc is mounted on the back of the animal in the area of the sacrum, acting on biologically active point and causing the stock of milk, and its lower part is provided with a holder with semicircles that supports the teat cups. All this provides a favorable milking, increases productivity, increases its performance, and corresponds to physiological requirements of animals.