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METHODS AND ANALYSIS OF COTTON SEPARATION FROM SMALL AND LARGE IMPURITIES

M. I. Botirov
Q.x.f.f.d Associate Professor

D. M. Ibragimova
Master's Student

Annotatsiya
Mazkur maqolada paxtani mayda iflosliklardan ajratish haqida so’z yuritilib,uskunalarni ishlash prinsipi haqida so’z yuritilgan.

Kalit so’zlar:CHigitli paxta,paxta tozalash,paxta tolasi,quvur,tezlik,massa,silindr.

Аннотация
В данной статье рассказывается об отделении хлопка от мелких примесей и принципе работы оборудования.

Ключевые слова:хлопок-сырец, чистка хлопка, хлопковое волокно, трубка, скорость, масса, цилиндр.

Annotation
This article talks about the separation of cotton from small impurities and the principle of operation of the equipment.

Keywords: Cotton seed, cot**ton cleaning, cotton fiber, pipe, speed, mass, cylinder.**

The Relevance of the Topic

Today, the issues of rapid development of agriculture, increase of its economic efficiency, further improvement of the living conditions of the villagers, and ensuring their interests are directly related to the modern method of agricultural management - the system of clusters. This new structure has become the driving force of the agrarian sector in a short period of time.

If we look at the history of cotton-textile clusters, the system of clusters was introduced in the Republic in 2017. Based on the decision of the President of the Republic of Uzbekistan dated May 19, 2017 "On measures to establish a modern cotton-textile cluster in Bukhara region" PQ-2978, "BCT cluster" MCHJQK in Bukhara region and On the basis of the decision PQ-3279 dated September 15, "On measures to establish a modern cotton-textile cluster in Syrdarya region", cotton-textile clusters of JV "Bek cluster" LLC in Syrdarya region as a pilot-test as a result, the number of cotton-textile clusters

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reached 16 in 2018, 77 in 2019, 97 in 2020, 122 in 2021, and 134 in 2022, and the clusters cover 100 percent of the cotton fields in the republic. took

Currently, the clusters are making progress, including providing jobs to the population. There are cotton ginning factories in the clusters, these factories are modernly equipped. After the cotton is received in the cotton ginning factories, products such as fiber, lint, and seed are obtained from it. special attention is paid to cleaning from impurities during the operation. During the cotton picking, the impurities are noticed by the picker. Therefore, picking depends on organic residues and defoliation**.**

If we dwell on the technology of cleaning seed cotton from small impurities, when choosing the types of equipment necessary for cleaning cotton from various small impurities, it is necessary to take into account their size, origin, degree of adhesion to cotton.

Cotton ginning machines consist of a pile drum part and a saw drum part. Fine weeds are best cleaned in the pile drum section, and large weeds are cleaned in the saw drum section.

Seed cotton ginning equipment is evaluated by efficiency and cleaning efficiency (the ability to separate chaff, husks and loose seeds from seed cotton). The cleaning efficiency of the equipment is determined as a percentage of the mass of the mixture separated from the cotton entering the equipment in relation to the mass of the mixture in the cotton seed.

$$K_M \frac{C_1 - C_2}{C_1} * 100\%$$

Here: contamination level of C1 and C2 seed cotton before and after cleaning, %

The cleaning efficiency of the equipment is greatly influenced by their efficiency, humidity and contamination of the seed.

The cleaning efficiency of the equipment depends on the amount of pollutants in the cotton seed: the more pollutants, the more pollutants are removed during cleaning.

Small inclusions are well separated from seed in drum and auger cleaners, and for their separation, sieving during the cleaning process of seeded cotton is sufficient. Therefore, cotton ginning equipment is used to clean seeded cotton from small impurities.

We will consider the structure and operation technology of fine-grained cleaning equipment for cleaning seed cotton from small impurities.

The equipment used for the cleaning of seed cotton from small pollutants is installed in the drying-cleaning department and cleaning department of the cotton ginning plant. The equipment for separating small impurities from seed cotton is divided into pneumatic and mechanical systems. The equipment for separating small impurities is individual and battery depending on the installation location, single-drum and multi-drum depending on the number of working organs, and single-drum and multi-drum depending on the number of working organs. and are divided into auger types.

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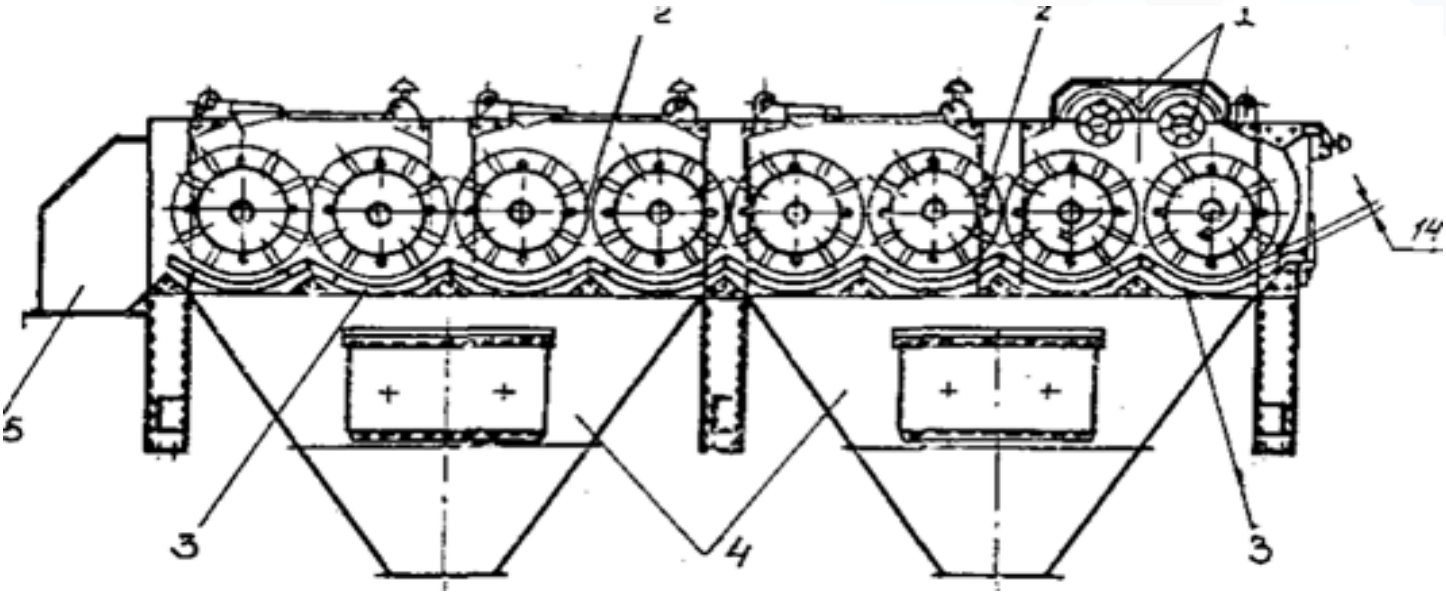
At present, in the cotton ginning industry, 8 pile SCh-02 drum is mainly used to clean seeded cotton from small impurities; 1XK wipers and EN178 pile blocks are used. Figure 1 shows the technological scheme of the 1XK fine particle treatment plant.



1-picture

Picture-1 Technological diagram of the 1XK cotton ginning machine
1 supply roller; 2 pile drums; 3 mesh surface; 4 bunkers; Tray 5.

The procedure is as follows: The seed cotton supply rollers (1) are lowered into the shaft installed in it. Counter-rotating mutual supply rollers transfer the seeded cotton to the pile drum at the same speed.

In short, you can get a lot of raw materials from cotton. Raw cotton must go through several stages before it becomes a product. Nowadays, modern technologies are developing, cotton processing factories are developing in our country.

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