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METHODS TO IMPROVE PNEUMATIC TRANSPORT SYSTEM ELEMENTS AND REDUCED COTTONSEED DAMAGE

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Abstract: The enhancement of the transport components of the device that carries cotton by air is the subject of several scientific studies that are analyzed in this article. According to an analysis, scientific studies are primarily concerned with preserving the quality of cotton that is transported, minimizing seed damage, lowering electricity usage, and minimizing the emission of dusty air into the atmosphere.

Key words: airflow, cottonseed damage, force, separator, separator chamber, roll box, small impurities, technological chain, pipe, drum.

The primary raw material used in the global textile industry is cotton fiber. According to data from the International Advisory Committee (ICAC), "Cotton" is used by organizations that produce 24.55 million tons of cotton fiber annually, compared to 23.07 million tons that were released on a global scale. He believed that cotton fiber would become more and more in demand in the future due to the rapidly expanding population. The quality of cotton fiber is in high demand, and there is a sufficient need for ongoing improvements in manufacturing efficiency. Accordingly, cotton fiber's competitiveness in the global market has increased, and it is now more contemporary and technological in terms of the dependable and high-quality modernization of new technologies and equipment for product manufacturing. The development of cotton is receiving a lot of attention. Specifically, the world's cotton ginning business was highly efficient, but owners were not paying attention to the resource-saving technologies and improvements in cotton cleaning for their cars. The purpose of the scientific research work of H. Kasimov cotton raw material in the composition heavy mixtures separately to take efficiency increase, fiber and seed damage ahead to take, in the pocket heavy mixtures continuousin a way come out to leave provision for garbage can the device new construction who did Figure 1.

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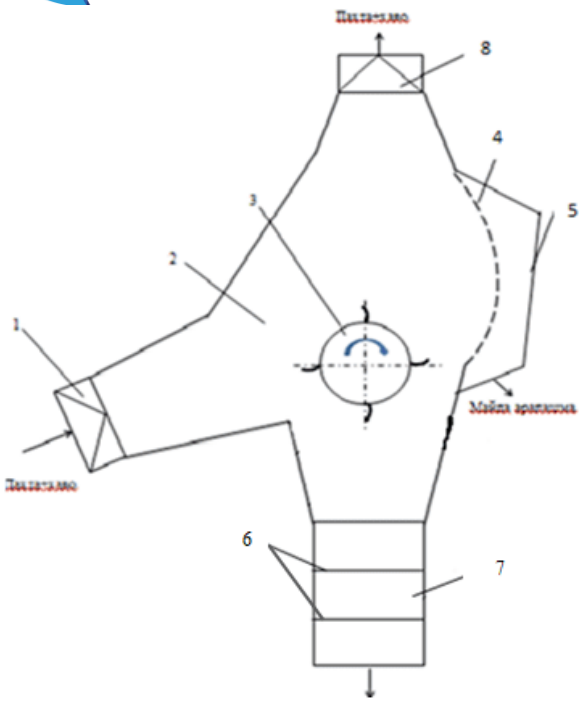
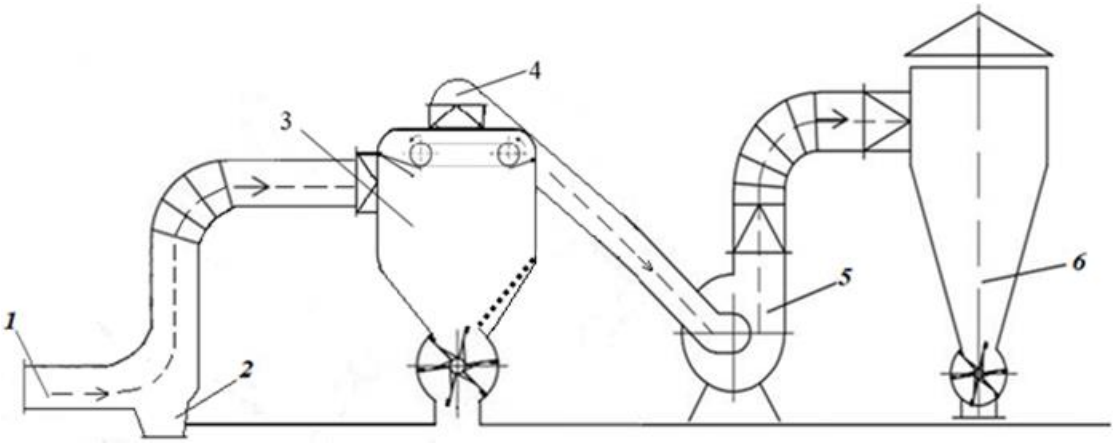


Figure 1. New in construction garbage can device scheme. (FAP No. 20210118)

1- inlet pipe, 2- working chamber, 3- drum with elastic coating, 4-mesh surface, Pocket 5-7, Plate 6, Exit 8 pipe.

Figure 1 shows a schematic diagram of the new launcher, then cotton being transported by air transport device raw thing weather current with entrance pipe (1) through worker to the chamber (2) included, loosely attached to the mattress with an elasticated lining The drum (3) rotates under its own inertia with the help of the air flow, forming a ball.arrived cotton raw his/her thing by touch gives. This with together drum elastic cover coverage seed damage to reduce yespossibility gives. Touched cotton raw thing weather current with the help of elastic to the base installed net to the surface (4) hit, in the composition small mixtures (5) falls into the pocket, and the raw cotton goes to the outlet pipe (8), and the heavy compounds contained in the plates under the influence of their own weight (6) one go away opened pocket (7) through continuous in a way outside come outwill go.

M. Salokhiddinova's scientific research work included developing a new design of a mobile device used to transport raw cotton and conducting scientific research to increase the efficiency of pneumatic transport by creating a new separator design.



2 . Proposed propulsion device

1-inlet pipe; 2nd stone holder; 3-separator; 4-air intake pipe; 5th fan, 6th cyclone.

We will divide the pneumatic transport pipeline of the mobile device into several sections, analyze the processes in each section and present the results using graphs. The sequence of the mobile device is presented below (see Figure 2). The mobile device is used to transport raw materials from a distance of 150-200 m between the cotton gin and the production department to the main processes. m The proposed device works as follows: the cotton is sucked from the gin through the suction pipe (1) with the help of a fan (5) and is trapped in a separator (2) to separate heavy impurities from the cotton. Then it moves to the separator (3). The cotton enters the working chamber of the separator, and the raw cotton is directed downwards by a guide installed after the inlet pipe, and a certain part of it is covered by a mesh belt installed at the top of the working chamber. The stuck cotton is easily separated by fixed wipers. Then the raw cotton is discharged through a vacuum valve and transferred to the next process.

The air drawn from the separator is directed through the spray pipe after the fan (5) to the cyclone (6). The dust mixed with the air is removed and clean air is released into the atmosphere.

Improvement of the technological process of cotton processing, preservation of the naturalness of cotton fiber and reduction of impurities and defects in the fiber, and recommendation for use in the selection of equipment involved in it
will be allowed.

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