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SECTIONAL CULTIVATOR FOR PROCESSING BETWEEN ROWS-TO DEVELOP A DESIGN OF A DEEP SOFTENER

Abstract: In order to increase the yield of cotton, it is important to process the Cotton between rows. The execution of this process is carried out by the cultivator. In the following years, the technology of deep softening of the gap range has been coming into play. An effective method of performing the two processes together is to save fuel and do not occur condensation between rows. To do this, it will be necessary to create a cultivator deep softener technical tool. This article is dedicated to the creation of a deep softener technical tool cultivator.

Key words: processing of the range of porous, rama and working organs, cultivator, working body, deep softener, combined aggregate, fertilizer, kronshteyn, Rotary and arc softeners.

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Introduction

Cultivators are an important technical tool in the processing of row crops, especially in the case of processing of row crops. Without them, it is impossible to imagine that cotton seeds will develop after sowing and sprouting and will enter the dressing (if drip irrigation is not applied to them). For many years, KRN-4, KRX-3,6, KRT-4 cultivators in cultivation have been successfully developed. If we pay attention to their structure, it consists of two parts, that is, the first part, which is located between the back of the tractor and the front wheels, is fixed on both sides of the lonjerons. The second part consists of rama and working bodies, which are fixed in a hanging way to the floor of the tractor. For soil treatment, in them, mainly rotational and angular paws are used, and, accordingly, the soil is 4...8 cm, Softens to a depth of 14...16 cm. [1]

This is rows in cultivators fertilizer spreaders at a depth of 10...12 cm are also provided for. Since the

cultivators used are perfectly developed, opinions on their shortcomings are not expressed by specialists and scientists now. But any technique will have an improvement over time, if there is a change in the sphere in which they are used, or because of its complexity. From this point of view, the cultivator, which processes the goose between the rows, consists of two parts, the placement of the parts on the lonjerons and the rear of the tractor is somewhat complicated, that is, their placement requires relatively more time for the adaptation and adjustment of the working organs in the front and back parts.

In addition, in addition to the processing technology of a number of porcine, deep annealing technology has been introduced in recent years. According to research studies [2], when deep softening softens the remaining hard layer of the dressing due to constant softening. When watering up to 30...40 cm, the development of the root system of the goose is improved due to the moistening of the

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softened layer. Therefore, in the farmer's farms, deep softeners are used, which are developed by themselves. Because the aggregate, which is deeply softening between the series, has not been developed. In the period of growth and development of the cotton-plant, the range is 2...3 go to the series is deeply softened. The addition of the aggregate to the range of intervals to perform this process causes an increase in the density of the soil of the range of intervals and the negative consequences of soil interaction with the wheel. [3]

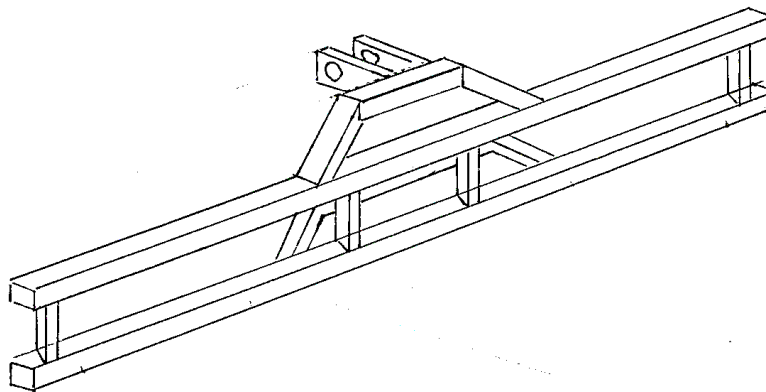
There is only one way to carry out the processing and deep softening processes between the pores together, it is also to develop a cultivator-a deep softener aggregate. This circumstance leads to a complete change in the design of the cultivator, that is, the picked up and rear parts of the cultivator, which are used in practice, as a whole, are simply hung on the back of the tractor by three points. [4] And this is

the improvement of the cultivator, which has been coming without change for half a century.

Cultivator deep-softener, which provides the opportunity to increase the number of rows in a case of low cocktail consumption, in order to effectively use the power of the aggregating tractor in creating the design of a deep softener, aimed at creating sectional types of deep softener.

Sectional cultivator-based on the rules developed in the creation of the design of a deep softener [7]. Cultivator-it was decided to show the stages of creation, since the design of the deep softener was created for the first time.

Stage 1. At this stage, only the draft of Ramah was created. Cultivator-since the deep softener project was the first one in practice, taking into account that the loading was high, it was made of 100x100 size profile as two rows, Picture 1. The three points of the cultivator were extended from the to 40 cm, so that Rama was at a certain distance from the tractor.



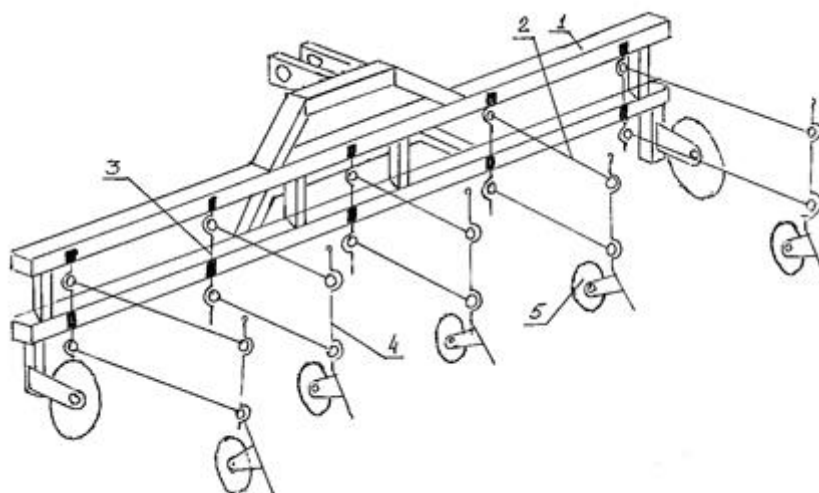
Picture 1. The cultivator is the Ram of a deep softener.

Stage 2. Since it is convenient to understand from this stage, all parts and parts are given in the form of a kinematic scheme. In the effect of the release of the range of intervals of the tractor, parallelogram mechanism is used to ensure that its vibrations are not transmitted to the working organs of the cultivator-deep softener. Its fixed crowns are hardened to 3 Rama, depending on the width of the range between

them. Picture 2. The crowns were made of 3,5 profiles of thickness 60x60 mm. Its base wheel has 5 driven crowns, the Central gryadillar is fixed to 4. The mechanism of the parallelogram on the two edges was made longer than on the others. Because of its base Wheel opposite the leading wheel is installed and it is fixed to the frame (the function is then explained).

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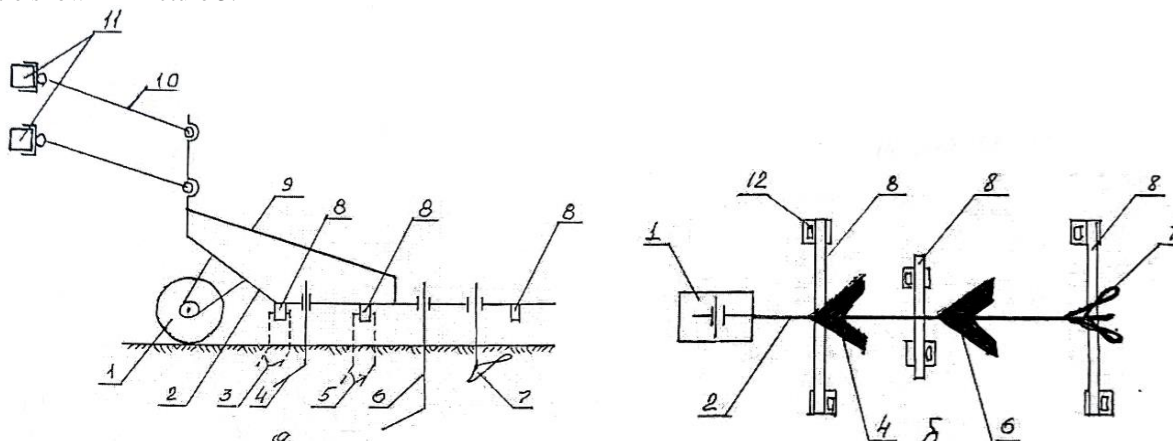
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1-rama, 2-mechanism of parallelogram, 3-fixed chronshtey of parallelogram, 4-fixed chronshtey of parallelogram. 5-base wheels.

Picture 2. Cultivator a scheme in which the Rama of a deep softener is combined with a parallelogram mechanism.

Stage 3. The mechanism of the Parallelogram is connected by Central gryadils to the end of the excitation crowns. Two views of the central gryadils are shown in Picture 3.



a-The View From The Side, b - the view from the top of the Central gryadil

1-Base wheel, 2-Central gryadil, 3,5-Rotary softeners, 4,6-Deep softeners, 7- Ditch opener, 8-Across gryadils, 9- help each others, 10- mechanism of parallelogram, 11 - rama, 12-locks

Picture 3. The scheme of the location of the central gryadil and the working organs in it.

Central grayadils (60x60-dimensional) are hardened cross-gradients 2 s. In each of them (at cross-gradings) mounted silencer locks 3 in the horizontal direction. Locks can be installed on the cross-gradients of the forward and reverse direction case. [6]

The location of the softener 6, deep softeners 7 and the ditch opener 8, which open the watering hole in the central gryadil, installed in the grooves, is shown in the view from the side of the Central gryadil.

Three consecutive deep softeners are installed in the center. They are in accordance with the moving

surface of the base wheel. It softens the soil at a depth of 6 cm, 8 cm, 10 cm [4]. These sizes can not be changed, no matter how deep the base wheel moves from the surface to the floor. As a result of moving each of them at a depth of 10 cm from each other, firstly reducing the load on each working body, and secondly reducing their resistance to drag relative, the cultivator reduces the resistance of the deep softener to drag. On the cross-graded locks are installed working bodies, which are used in conventional cultivators, and they perform the functions performed by conventional cultivators.

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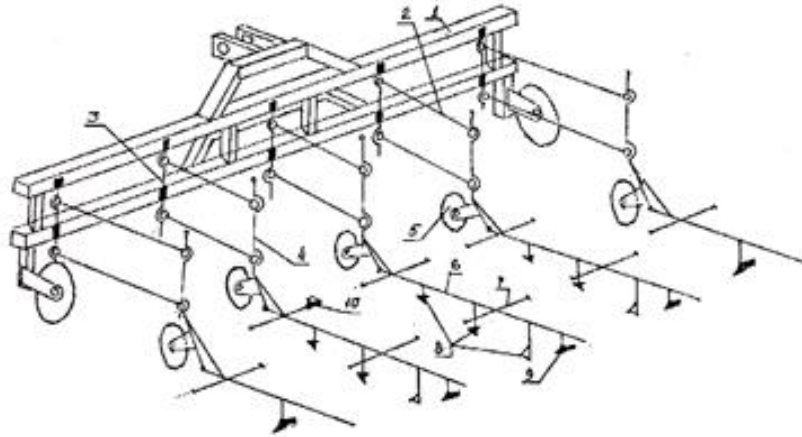
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Depending on the work performed in the processing of working bodies installed on the central gryadil in a row, the necessary ones are used, and the rest are raised.

The front part of the developed central gryadil is connected to the end of the excitation kronshteyn of the parallelogram mechanism.

Stage 4. The developed central gryadils parallelogram mechanism with the connection at the end of the excitation kronshteyn, the sectional variant of the cultivator-deep softener will be ready, Picture 4.



1-rama, 2-mechanism of the parallelogram, 3,4- the kronshteyn non-excitable and excitable of the parallelogram mechanism, 5-the base wheel, 6-The Central gryadil. 7-transverse gryadil, 8-deep softeners, 9- ditch opener, 10-lock.

Picture 4. Cultivator - deep softener full kinematic scheme.

Stage 5. At this stage, auxiliary devices for sectional cultivator deep-softener are installed. These are sectional lifting devices in the case of aggregate transport, and movement transfer devices from the mounted wheel for fertilizing crops, and from it to the quantitative axis in bunkers.

Ishlangan the cultivator-deep softener prepared on the basis of the projects is shown in Picture 5. The combined cultivator of the aggregate produced taking into account the processing, deep softening and fertilization work on the soil of the interplanetary range, the so-called deep softener KKCH-3,6 X, can be called. [5]



Picture 5. The combined cultivator, prepared on the basis of the project, is a test variant of a deep softener (KKCH-3,6 X)

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Conclusion.

1. The finished aggregate performs not only the function of the cultivator, but also the function of deep softening, when necessary, simultaneously processing between rows.

2. The developed combined cultivator-deep softener also provides the opportunity to save fuel consumption during the task and not increase the density of the soil.

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