

## **ANALYSIS OF AVAILABLE EARTH QUAKING MACHINES**

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### **Annotation**

The article describes the technological processes of selection of the type of leveling and leveling methods, based on the height of the irregularities and the conditions of leveling, the organization and selection of current and basic leveling of irrigated crops. Keywords- Bucket, soil, resource saving, technology, softening, bullet, area, device, scheme, aggregate speed, machining, diameter, radius of curvature, grinding quality, grinding.

Long base levelers and other levelers are widely used in the leveling of irrigated arable lands of the Republic. In the first stage of leveling work, grader-type machines and mechanisms are used; These include GN-2,8 and GN-4 grader blades, D-241A and D-20BM graders, P-2,8A, PA-3 long base levelers and KZU-0.3 pal scrapers with scraper wall. . In cases where it is not possible to select mechanisms, it is recommended to use special machine-levelers.

In the second stage of leveling, volokushka-type levelers are used. These include VP-8, PR-5, KZU-0.3, level MV-6.0, P-4A, P-2.8A, D-719 and PA-3. . At the Uzbek Research Institute of Agricultural Mechanization and Electrification, research work was carried out on irrigated lands with different reliefs, and experiments were carried out with levelers of various constructions. Based on the results of scientific research and the collected data, it is recommended to use the following levelers:

- On lands with uneven heights of 18-20 cm - long base levelers of type P-4A, P-2,8A and D-719;
- In areas with uneven heights of about 10-12 cm - automatic base leveler with a long base type PPA-3.1;
- It is recommended to level the unevenness with the help of VP-8, PR-5 or KZU-0,3 levelers on the soils with the height of 6-8 cm.

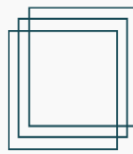
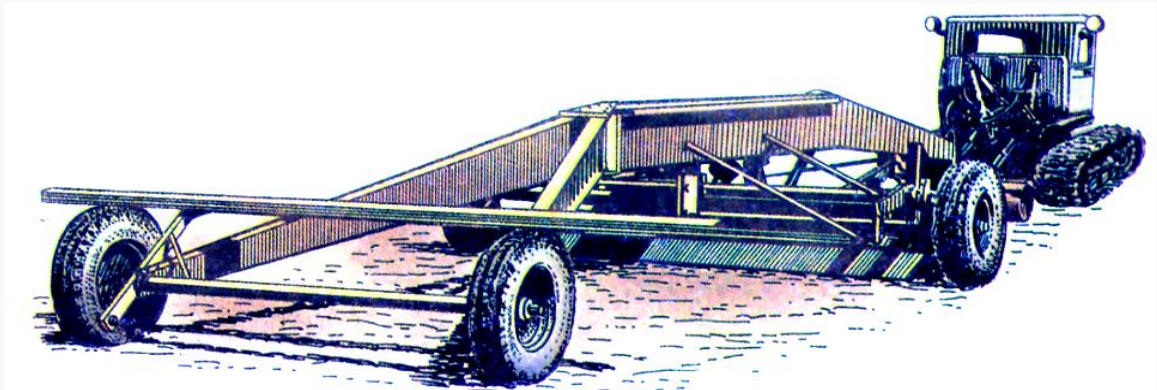


Figure 1. P-2.8 type leveler:

In the process of leveling the soil with a P-2.8 type ground leveler, it increases the gravity resistance of the plain if the soil contains horn stalks and root remnants left over from the previous year. This in turn causes the geometric shape of the tequila bucket and the parts present in it to change.

The following should also be mentioned in the leveling units used in the main and current leveling of irrigated crop areas.



2 - picture. PA-3 brand long base leveler.

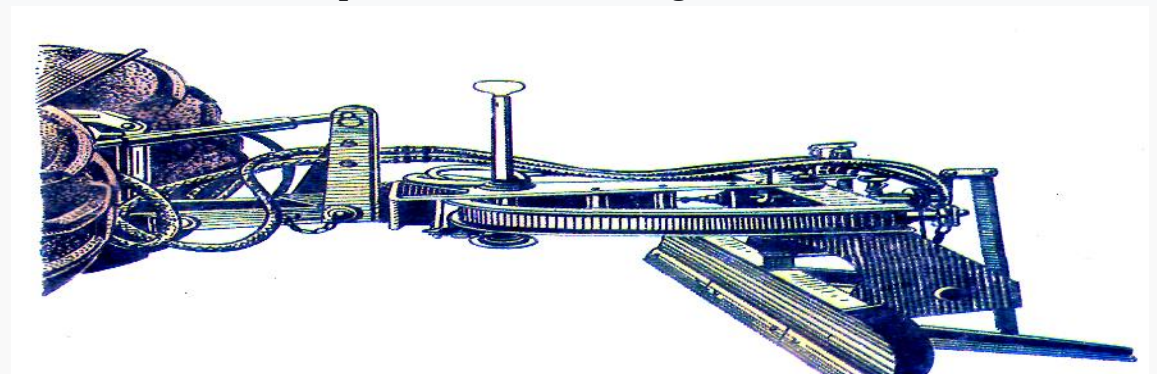
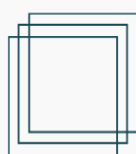


Fig. 3. GN-2.8 installation grader leveler



Suspended earth levelers are mainly used for leveling small irregularities, as well as for leveling the corners of the field when burying temporary ditches when spreading the boundaries. The GN-2.8 leveler is classified as 0.9 and 1.4 class, while the GN-4 leveler is aggregated for 4-5 class tractors or modern high-powered tractors.

With this type of levelers, it is not possible to level large irregularities in accordance with agro-technical requirements, as these levelers are mainly involved in current leveling work.

A PPA-3.1 type leveler (Figure 4) is designed to level the fields before planting. It can also be used as a hydraulic scraper when moving the soil. This leveler is used to attach a chain and a high-powered wheeled tractor.



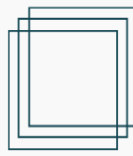
Figure 1.6.PPP-3.1 type leveler

When using the leveler as a scraper, the front and back sections are removed. The lever of the immersion mechanism of the bucket is moved to the position of forced immersion of the bucket, the immersion of the bucket in the soil is carried out by means of a hydraulic cylinder.

In the implementation of irrigation and reclamation measures on irrigated lands, it is important to take into account the natural climatic conditions of each region.

Thus, the timely and quality implementation of measures to improve the reclamation status and efficiency of lands will cover the costs in a short time.

Leveling the crop area: simultaneous germination of seedlings, increased efficiency of washing away unnecessary salts from the crop area, even distribution of water throughout the crop area, and non-washing of fertilizers around the roots of the crop. The soil is spread all over the leveled fields at the same time, creating the opportunity for quality work between the rows. However, in uneven areas, the land dries up elsewhere until the soils of the lowlands are ripe. The cultivator cannot loosen such soils at the same depth.



As a result, the quality of work decreases, large lumps appear on softened soils, and soil moisture escapes quickly, the plant does not grow well, and yields are low, not covering the amount spent.

Scientists of the Bukhara branch of the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers are carrying out significant research work, taking into account the need to reconsider the design of equipment used for leveling arable lands, improve them and create new ones.

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