50X1-HUM
Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Page Denied

Next 1 Page(s) In Document Denied

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 :
CIA-RDP80T00246A025500400001-4

THE INSTITUTE

OF WATER ECONOMY AND HYDRAULICS

OF THE ACADEMY OF SCIENCE OF THE UZBEK SSR

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 :
CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 :
CIA-RDP80T00246A025500400001-4

ACADEMY OF SCIENCE OF THE UzSSR

INSTITUTE OF WATER ECONOMY AND HYDRAULICS

THE INSTITUTE OF WATER ECONOMY AND HYDRAULICS OF THE ACADEMY OF SCIENCE OF THE UZBEK SSR

PUBLISHED BY THE ACADEMY OF SCIENCE OF THE UzSSR

TASHKENT·1961

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 :
CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Fig. 1. The Institute of Water Economy and Hydraulics of the Academy of Science of the Uzbek SSR.

The Institute was founded in 1925 under the name of the Central Asian Scientific Research Irrigation Institute to provide the irrigation engineering of Central Asia with tasks for the experimental part of the research work.

The scope of the scientific research work in water economy was greatly enlarged after the Academy of Science in Uzbekistan was established in 1943. At present the work of the Institute involves all the problems dealing with the study and utilization of water resources, construction and maintenance of water diversion works, hydraulic structures, irrigation and drainage systems.

The Institute serves all the water organizations and at the same time carries out theoretical and experimental work in all branches of hydraulics and reclamation.

The Institute is composed of the following departments and laboratories:

1. Department of Hydrology and Water Resources,
2. Department of Complex Problems and Water Power Engineering,
3. Irrigation and Reclamation Department,
4. River Beds Department,
5. Laboratory of Intake Structures,

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

6. Laboratory of Structure Hydraulics,
7. Experimental Wave Action Laboratory,
8. Soil Science and Soil Mechanics Laboratory,
9. Department of Hydraulic Structures and Seepage Flow,
10. Laboratory of Building Materials,
11. Mechanization Department,
12. Laboratory of Prefabricated Reinforced Concrete Structures,
13. Laboratory of Hydraulic Machinery,
14. Laboratory of Water Gauge Sets.

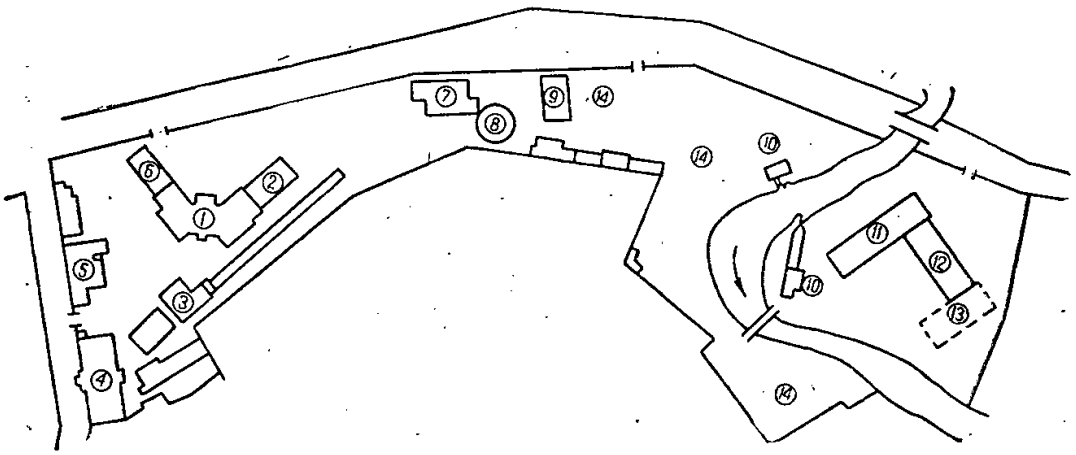

Fig. 2. A Plan of the Institute:

1 — main building; *2* — the Laboratory of Intake Structures; *3* — Experimental Wave Action Laboratory; *4* — Laboratory of Building Materials, Soil Mechanics, Analytical and others; *5* — Experimental Mechanical Work-Shop of precision Instruments; *6* — Laboratory Water Gauge Sets; *7* — Laboratory of Prefabricated Structures; *8* — Calibrating Station; *9* — Laboratory of Hydraulic Machinery; *10* — Pumping Station; *11* — Laboratory of River Beds; *12* — Laboratory of Soil Science, Seepage Flow and other departments; *13* — Building of the Laboratory of Hydraulics and Hydromechanics now being designed; *14* — Experimental Models.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

PROBLEMS THE INSTITUTE IS SOLVING AND THE IMPORTANT RESULTS ACHIEVED

Problem 1. Scientific principles underlying the complex utilization of water resources in Uzbekistan

The Department of Hydrology and Water Resources carries out research work on the problems of water resources and flow formation, it studies the river flow regimes, works out the methods for hydrological estimations and solves questions of water balance of irrigated areas.

On the basis of the studies of the Central Asian rivers flow and observing their regime fluctuations the rules for flow control are derived and the main characteristics established. This brought about the further development of methods for approximate determination of river flow characteristics for the unexplored regions of Central Asia.

The role of various sources of river water supply is made clear and it was ascertained that it is not glacier but snow that plays the leading part.

The research work is going on the problem of water losses from the water table of reservoirs on the territory of Uzbekistan. The estimation of the Sir-Darya river water balance is drawn up on the section just above the Chardar Reservoir for further necessary construction of water power and irrigation works.

Water power cadastre of the rivers of Uzbekistan and surrounding regions is being completed.

The Department of Complex Problems and Water Power Engineering works on the questions of complex utilization of surface and underground water resources in the national economy of Uzbekistan (in the first place for irrigation needs, water supply and water power), bringing out the basic points and methods for drawing up schemes for complex utilization of the Central Asian rivers and dealing also with control and regulation problems of river flow along with water power estimations.

This Department derived a method for drawing up schemes for the purpose of pump irrigationw ith complex utilization of water resources.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

In accordance with the newly obtained experimental data a plan-scheme for the development of irrigation along the mean flow of the Amu-Darya river is in preparation; in the valleys of the Zeravshan and Kashka-Darya rivers pumping irrigation and gravity flow irrigation zones are set up together with the techno-economical reasons and a plan-scheme for subdividing the territory into zones is worked out.

Problem 2. **Irrigation and Reclamation**

The Department of Irrigation and Reclamation works on the following general problems: technique and machinery for irrigation of agricultural crops, control of canal silting and its overgrowing, reduction of the maintenance costs, on reclamation problems of saline soils by means of horizontal surface and underground drainage and vertical drills.

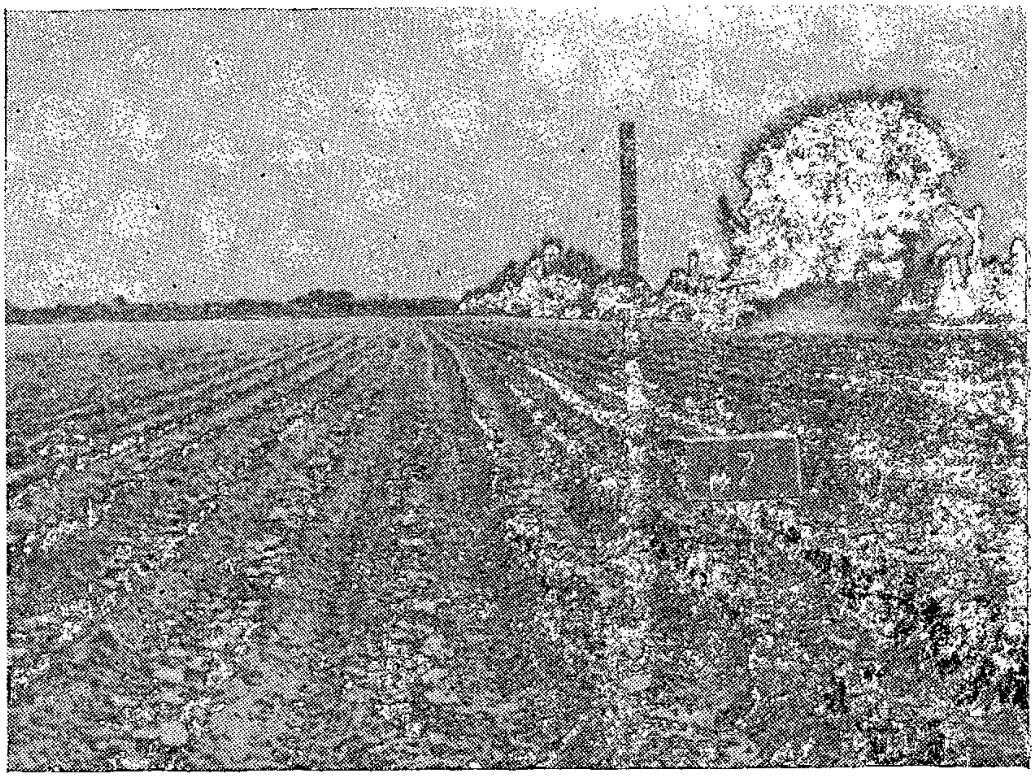

Fig. 3. A field irrigated by long furrows.

This Department introduces: a method of estimating the elements for furrow irrigation, sprinkling of cotton plants, devices for increasing the labour efficiency — such as pipes, siphons (rubber tubes), portable pipelines; methods for designing

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

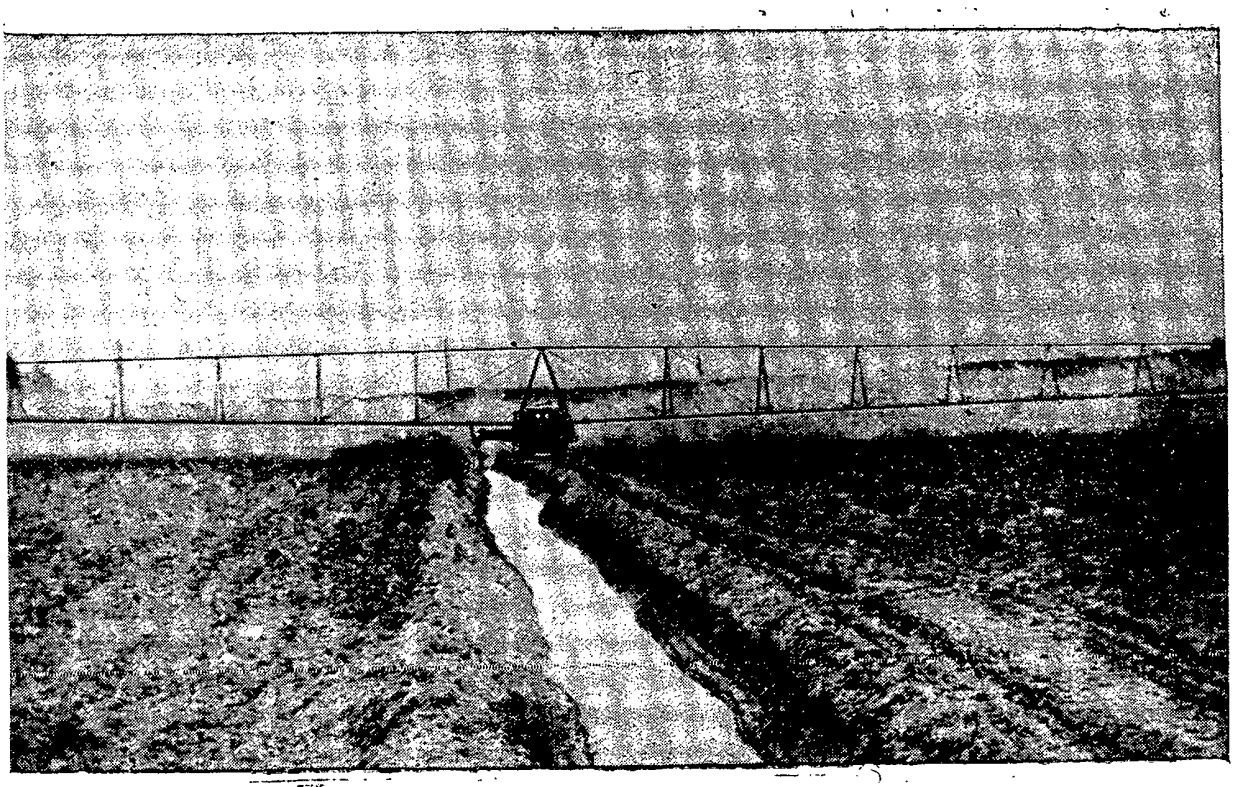

Fig. 4. Irrigation by sprinkling.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

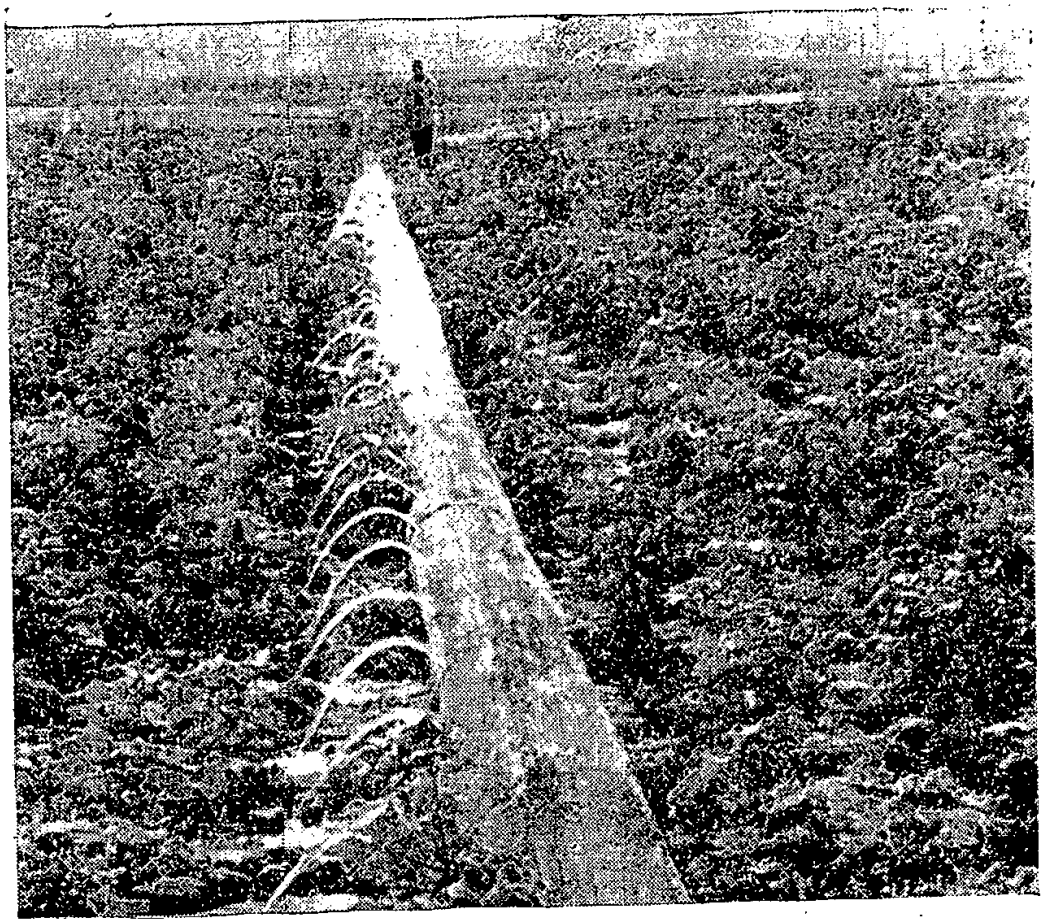

Fig. 5. Portable pipeline.

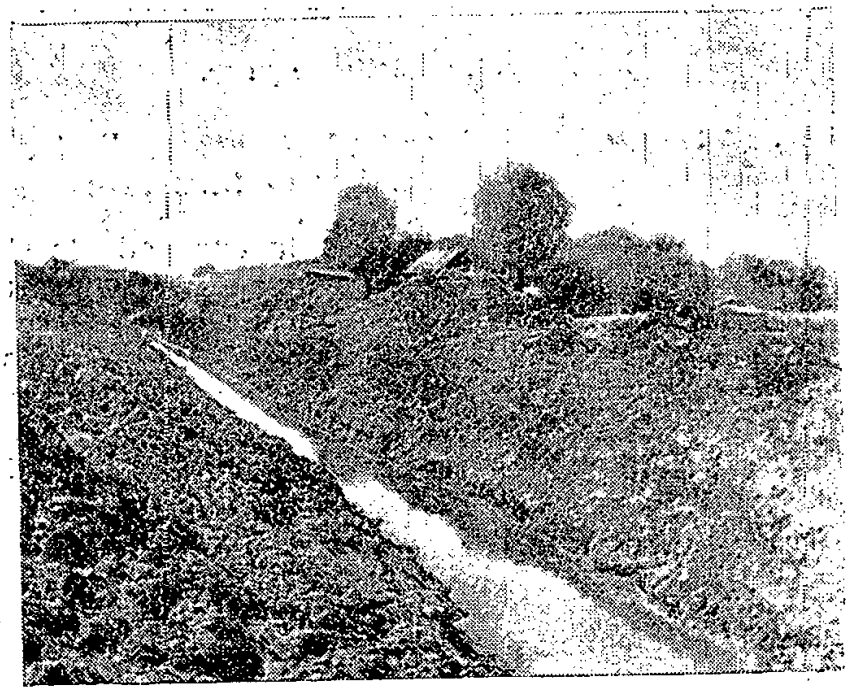

Fig. 6. Horizontal open drain.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

and practical execution of levelling as well as extention of irrigated areas; the Department also worked out methods of estimation and construction of vertical drainage; it derived a method for estimating the horizontal drainage by water balance equalization and construction of temporary drains.

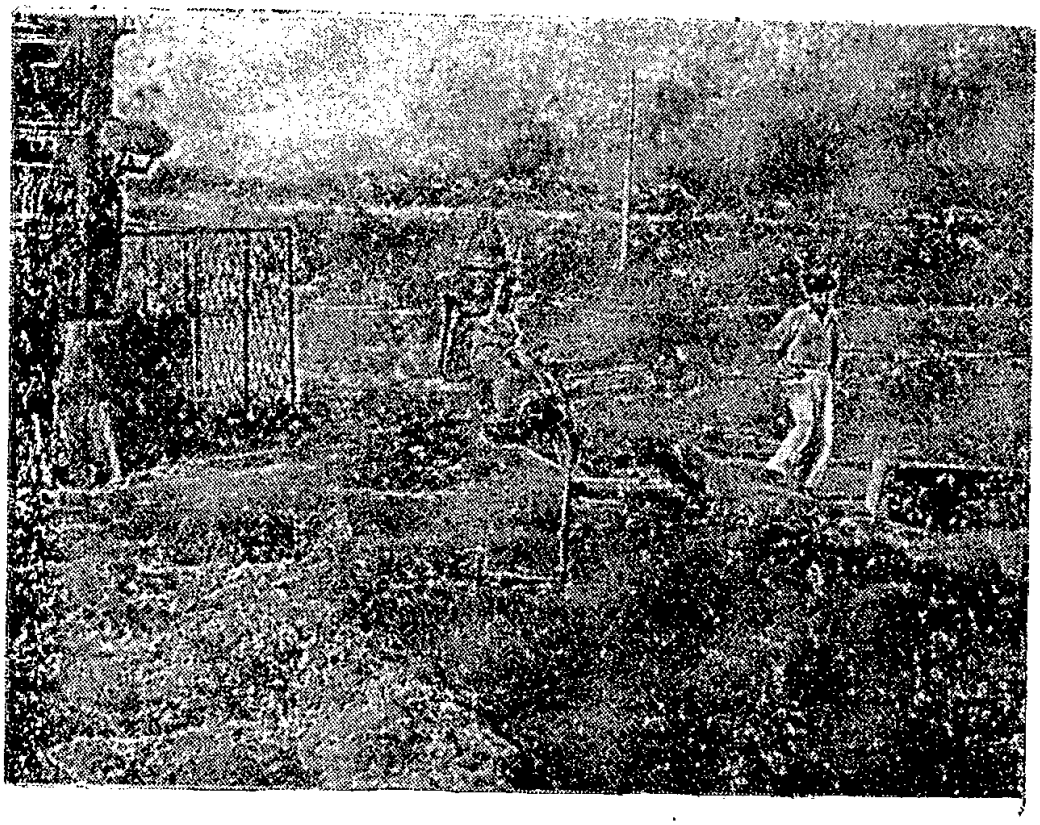

Fig. 7. Vertical drainage pump.

Problem 3. **Study of the River Bed Courses, Water Intake Structures and Hydraulics of Structures**

The Department of River Beds in engaged in studying the rivers of Central Asia with the aim of drawing up methods to regulate river beds, to estimate silting process and washing of upstreams and downstreams of headworks as well as to estimate the scouring of beds along the great length in dams downstreams; in is occupied in compiling the methods for estimating the ice regime on river sections adjoining the headworks and determining the time of the reservoirs silting. Analyses of turbulent flow patterns carrying sediment are conducted.

The River Bed Department carries out laboratory and field research work for a series of large hydraulic projects (Farhad,

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

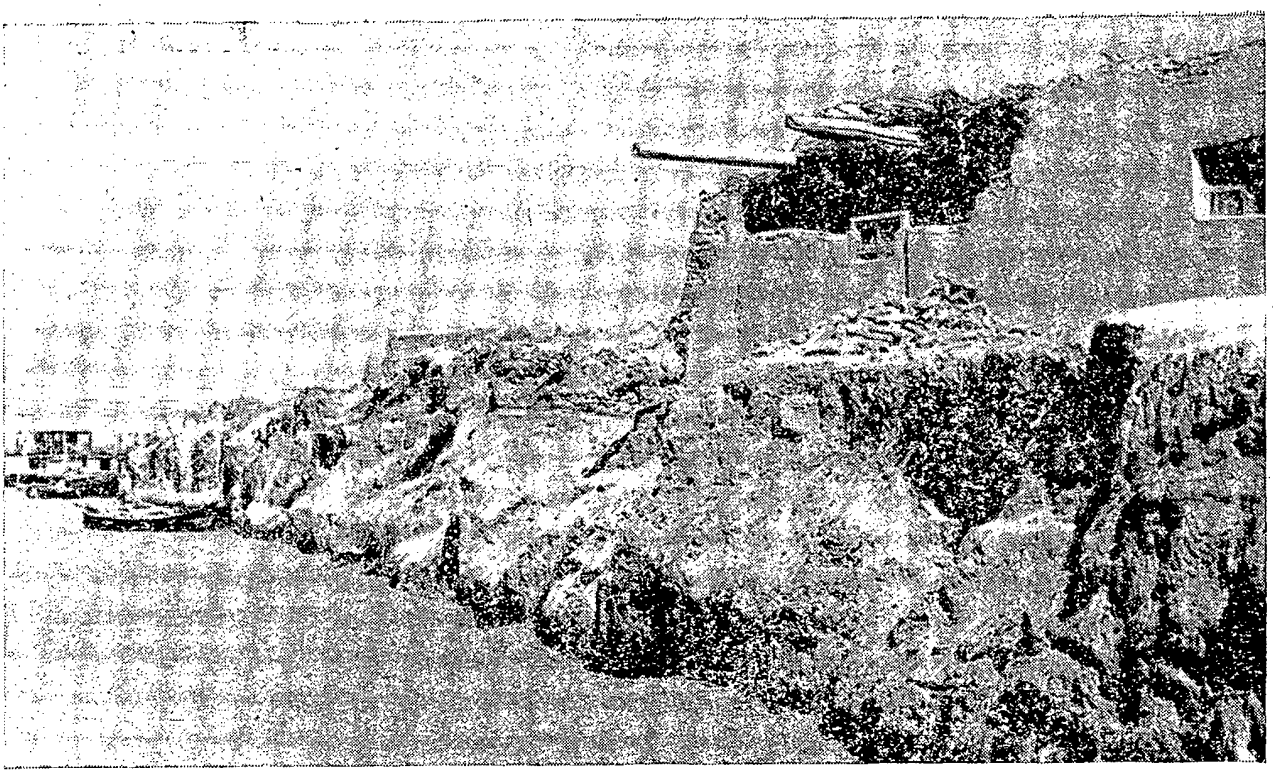

Fig. 8. Scouring of the Amu-Darya river bank (Daigish).

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

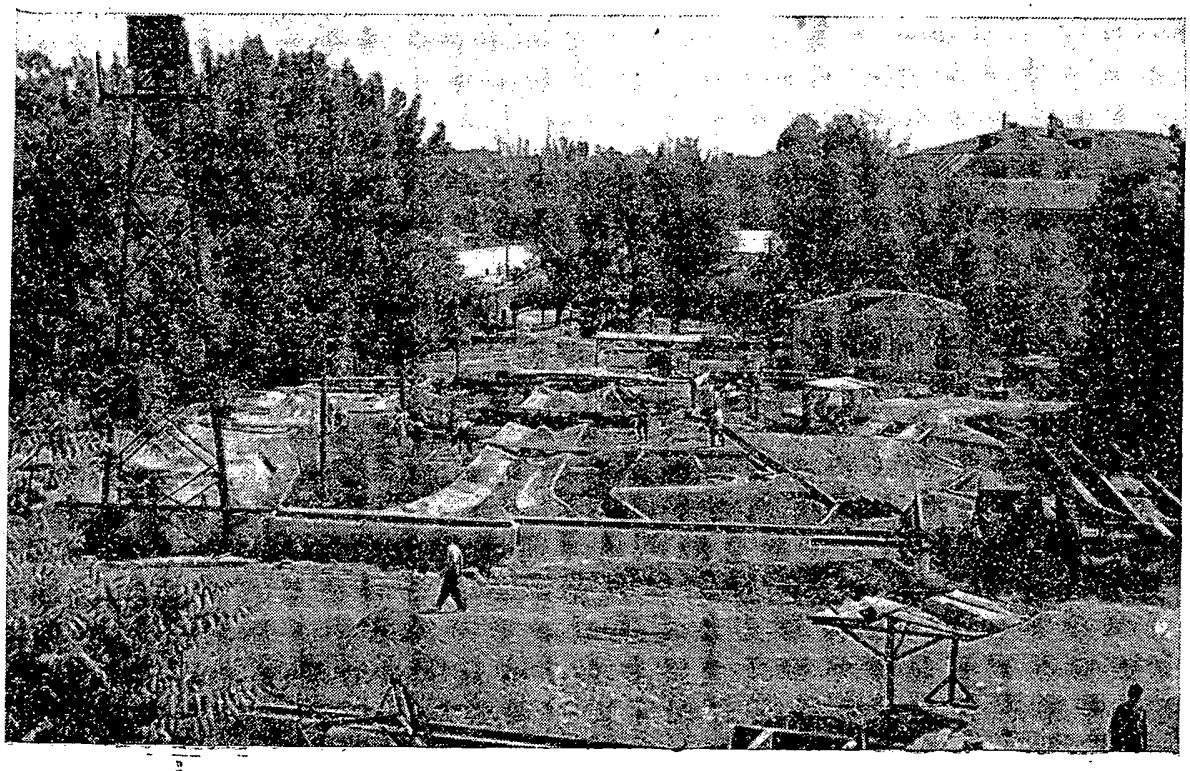

Fig. 9. General view of river bed models site in summer.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Kairak-Kum Dams on the Sir-Darya river, Kampir-Ravat and Gazalkent Dams). The methodical part of the main silting problems of the work is completed and the reasons for rapid silting (twice as much thas has been expected) of Farhad and Kairak-Kum reservoirs were elucidated. It was determined that in estimating the silting process period one should take in consideration also the effect of wind wave action on the reservoir banks and some other factors.

The Laboratory of Intake Structures is busy with methods of further improvement of intake structures on the Central Asian rivers with appliances controlling the entrance of sediments into the irrigation and power station canals.

The Laboratory together with the designing institutes has completed the scheme of an intake works of Fergana type which permits the draw of water for the canals with the least amount of sediments.

The operation of this type of intake works based on the principle of utilization of a lateral flow circulation, possesses the following characteristics.

The intake process takes place from a curved flow at a concavity of the river bank. Intake works dams consist of curvilinear approach channel gate dam, intake sill adjoining the dam at the concave bank. In most cases the river headworks in Central Asia are built according to this type.

The Laboratory of Intake Structures has worked out the theory and a calculation method for silting basins, curvilinear sand traps and silt-discharge canal capacity.

In the **Laboratory of Structure Hydraulics** questions connected with energy absorption in the downstreams of headworks are studied, research work is carried out on the question of disturbed and pulsating flow as well as on methods of the hydraulic modelling.

The elaboration of a method for the depth calculation of local scouring beyond the headworks which is of great importance for correct evaluation of possible scouring, as well as designing and calculation of tower and siphon spillways were accomplished by the Laboratory.

The main problems with which the **Experimental Wave Action Laboratory** is concerned consist in active and passive control measures for protecting the slopes of earth dams and reservoir embankments from wave action. The Laboratory plans to study wind and wave regimes of reservoirs, fixing the wave load standards more accurately. The Laboratory is also busy with the testing of large-scale models of various types of strengthening in order to choose the best solution and finally the Laboratory is engaged in making a detailed study of cal-

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

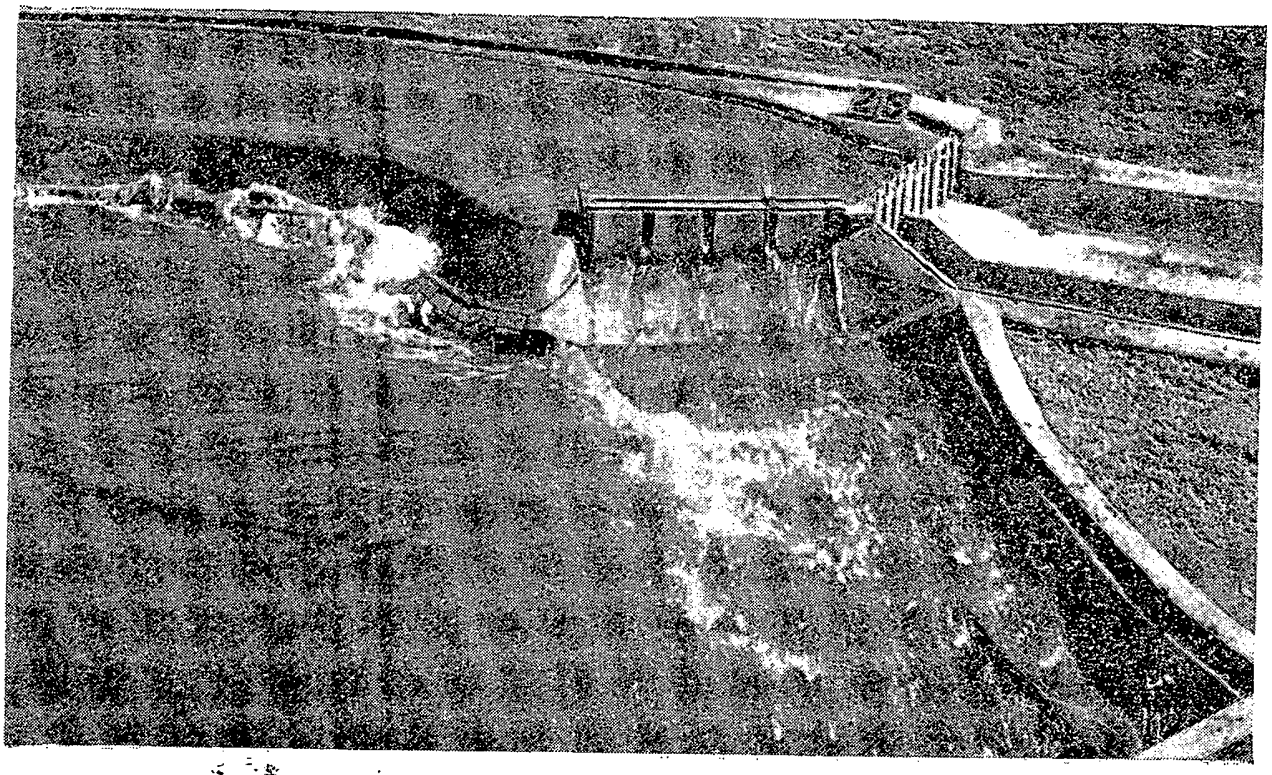

Fig. 10. The Kuiluk headworks model.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

culating methods. Visual observation is set on the experimental sections of reservoirs. For example observations on conditions of strengthening the Katta-Kurgan Dam slopes were conducted, and the values of wave height vs. wind velocity were determined.

A laboratory with two wave flumes 16 *m* and 80 *m* long, respectively, will be completed in 1961. The height of the waves in these flumes will reach 1,7 *m*.

Problem 4. **Calculating Methods and Construction of the Hydraulic Structures**

The **Department of Hydraulic Structures** and the **Laboratory of Soil Science** carry on research work on the structural properties of loess soils used as building material in the majority of earth structures in Central Asia. The calculating methods of designing and erection of earth hydraulic works are being studied. The Laboratory of Soil Science conducted research work on structural properties of loess soils: common, saline and loose settling soils. The results of these tests make it possible to apply soils containing 10% of salt for important earth constructions and in some cases it is even possible to apply soils containing as much as 15% instead of the usual 3% of salt fixed by State Standards.

Methods for fixing the bed settling for embankment and dam construction are also completed by the Laboratory and recommendations are given for foundation treatment in loose settling soils. This helps to determine more accurately the necessary volume of supplementary work due to foundation settlement and garantees to a greater degree the safety of the construction. The Laboratory has provided methods for designing, constructing and maintenance of canals in highly loose settling soils.

The Department of Hydraulic Structures studies questions of deformations of earth dams (among these are the dams constructed by filling the water with soil), the consolidation process and stability of canal slopes in saturated loess soil are also studied; simplified methods of percolation calculation in structures taking in account all volume seepage are worked out (among these drops-chutes, water outlets, aqueducts and cantilever spillways.)

The Laboratory of Building Materials is engaged in finding new as well as local materials for water works problems, choosing right concrete proportions and testing their properties for application in irrigation construction.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Fig. 11. Cracks in settling loess soils as a result of wetting.

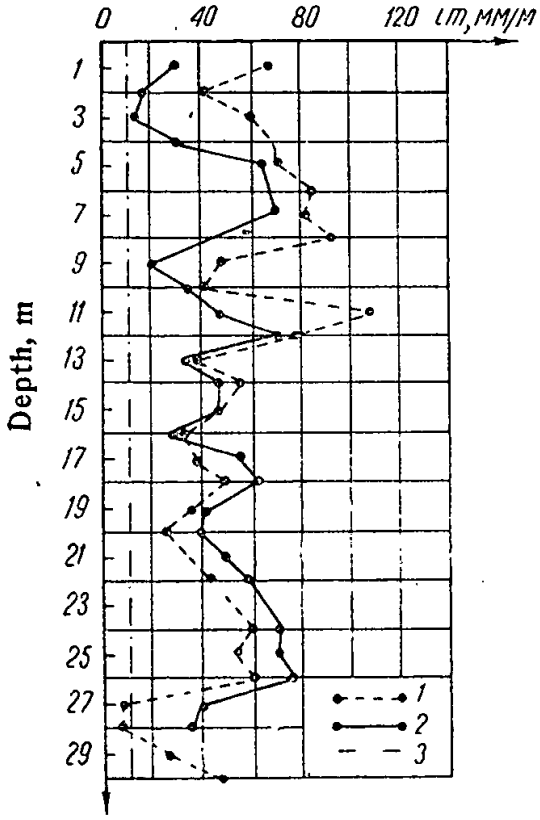

Fig. 12. Diagram of value variations of relative depth settlment in loess soils.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

The Laboratory is also busy with studying of earth canal lining materials and coverings in order to protect concrete from abrasion. Technology of preparation and placing of cold-mixed asphalt materials was likewise completed. General characteristics of plastic concrete containing furfurol acetone monomer „FA" with required abrasion resistance were obtained

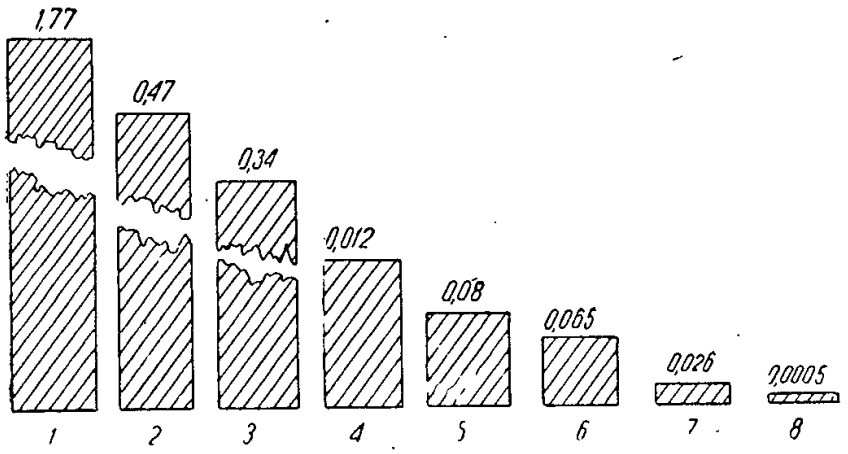

Fig. 13. Abrasion resistance of lining materials (kilograms per square meter per hour) determined by a special device designed in the Institute.

as a result of research work. Properties of reinforced gunite were studied so as to apply it as a lining material for pressure hydraulic structures, research work is going on making gunite more plastic and using it as an anti-seepage canal lining.

Problem 5. **Mechanization and Industrial Methods in Hydraulic Construction**

In the **Mechanization Department for Water Works** beside testing of irrigation machinery and improving their service and methods of advanced mechanized processing they design new machines for building and maintenance services in irrigation systems.

Field testing of a floating mower for cleaning canals from vegetation designed by the Institute was carried out and a special machine has been designed for cleaning laterals from vegetation and silt deposits.

For horizontal underground drainage 2,5—3,5 *m* deep the Mechanization Department together with Glavgolodnostepstroy (Hunger-Steppe Design Institute) constructed a drainlayer. This machine prepares trenches, lays drains 500 *mm* long and

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

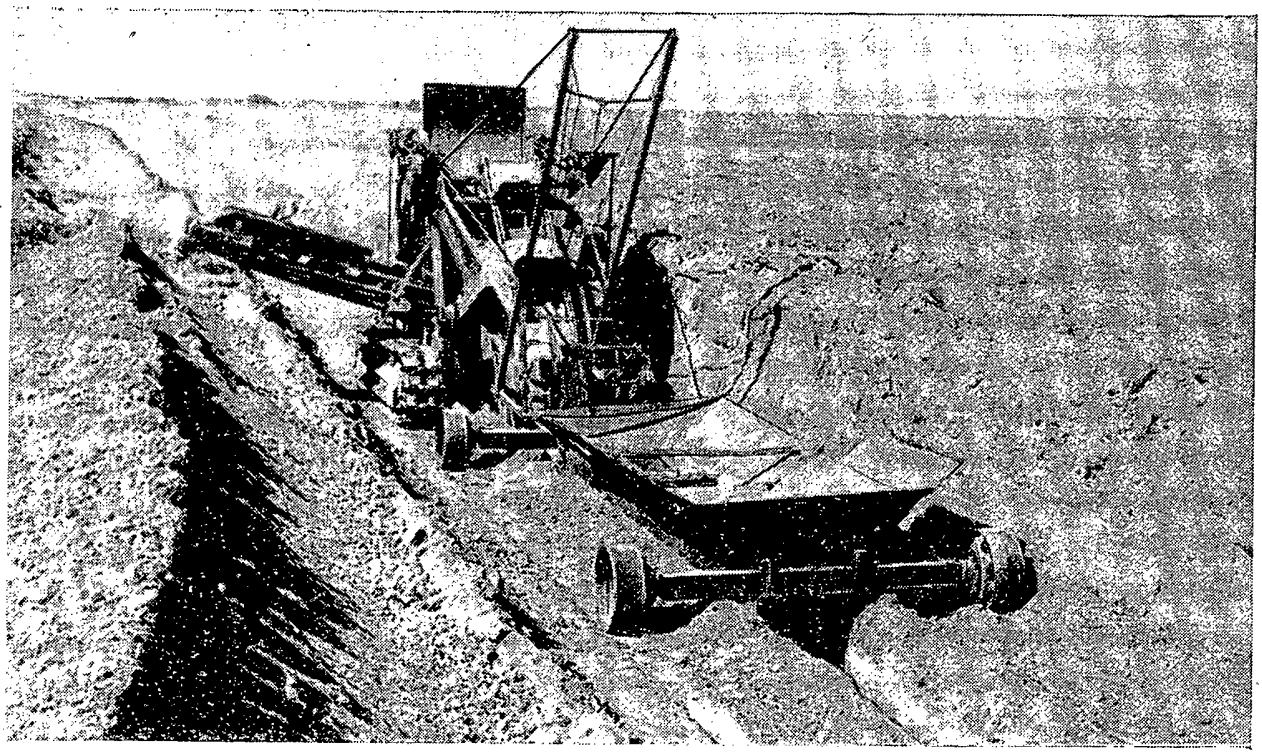

Fig. 14. Drainlayer of D. 251 type for the construction of underground horizontal drains. 3,5 *m* deep.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

covers them with gravel. The effiency of the machine attains 250 linear meters per shift.

The **Laboratory of prefabricated Reinforced Concrete Structures** is engaged in improving prefabricated concrete and reinforced concrete structures and canal linings; besides that it is busy in creating new thin-walled prefabricated structures.

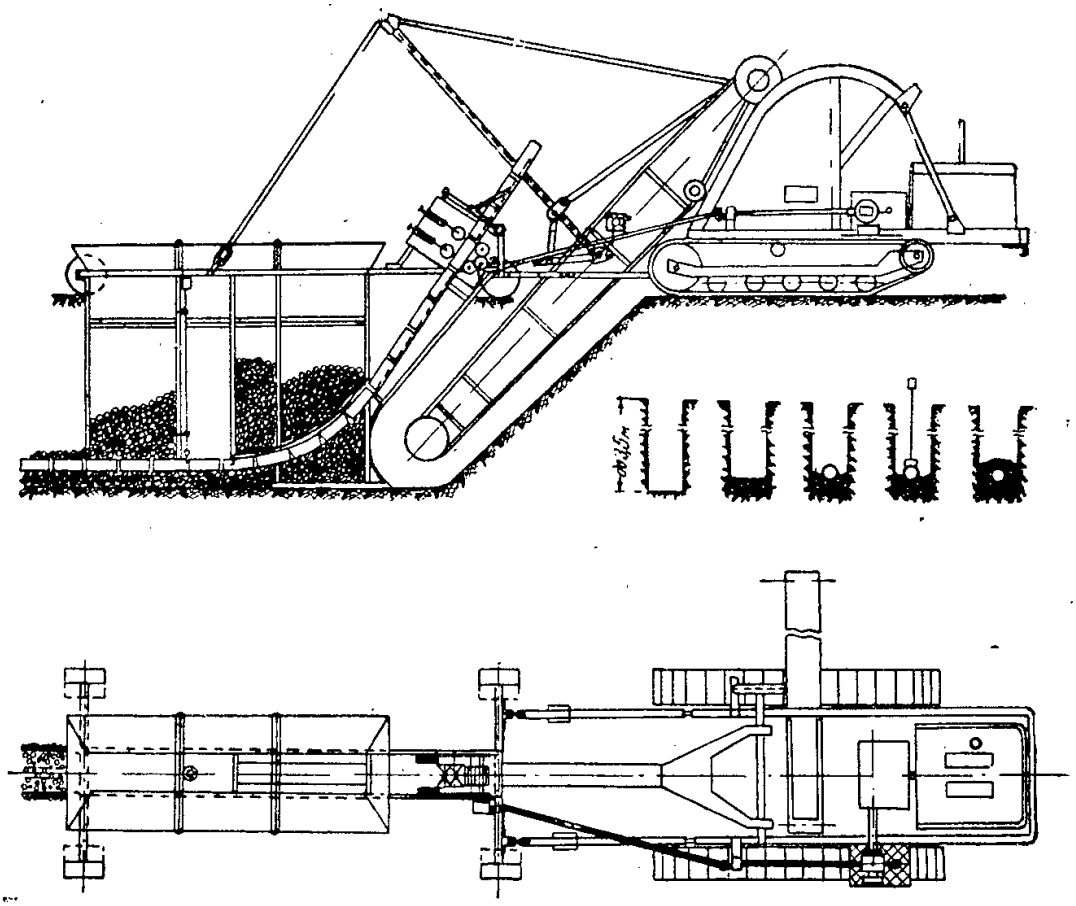

Fig. 15. Diagram of drainlayer operation.

For manufacturing in situ the prefabricated parts the Laboratory has planned experimental stations with stand-basins adjustable for working in specific climatic conditions of Central Asia.

The Laboratory discovered the possibility of reducing the thickness of reinforced concrete linings from 12 *cm* to 6 *cm* for main canals and in canals where water discharge runs from 0,2 to 20 cubic meters per second. The practice of using prefabricated concrete linings 5—8 *cm* thick rather than those of reinforced concrete has been proved to be more economical.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

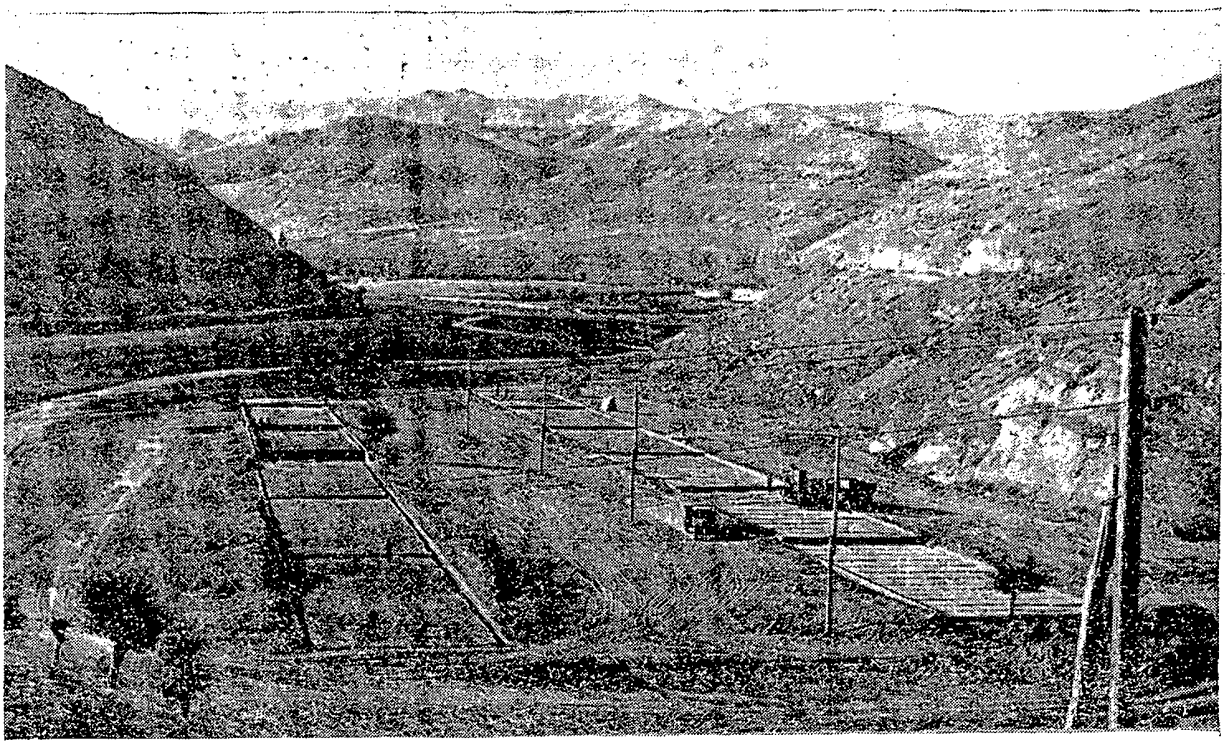

Fig. 16. Experimental station with stand-basins for manufacturing the prefabricated parts of the structures in situ.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

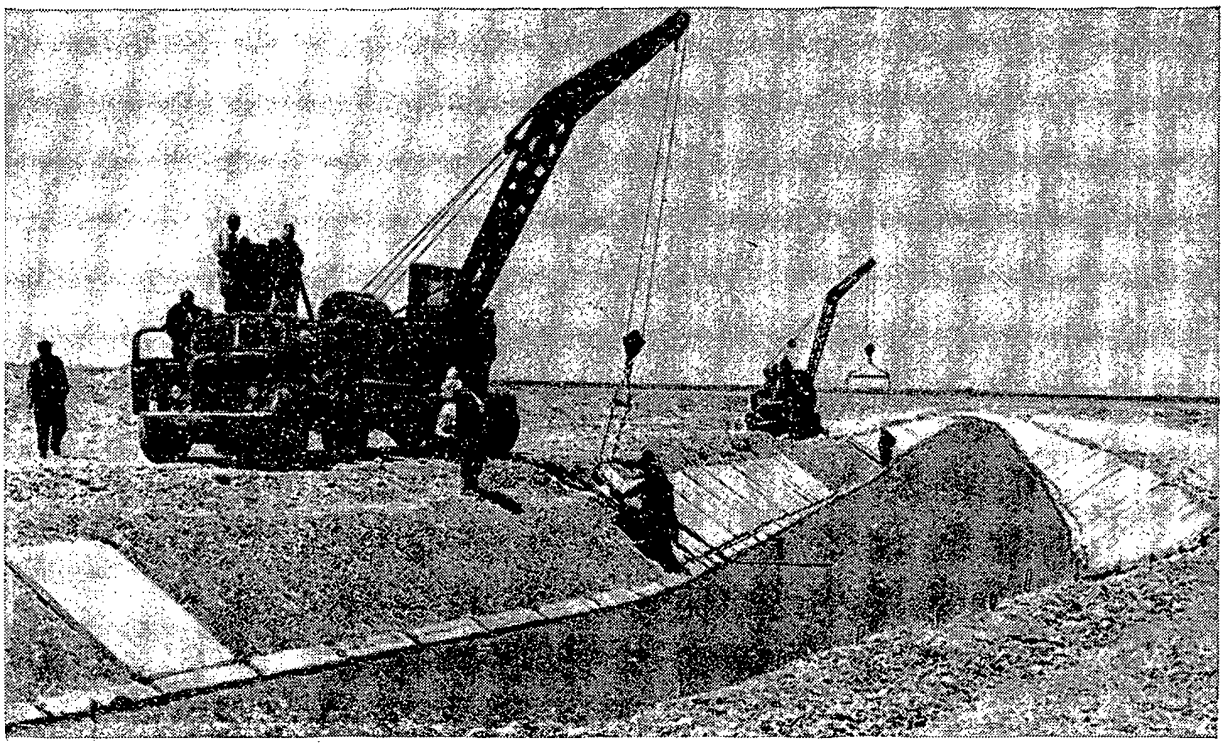

Fig. 17. Placing prefabricated concrete lining on the main canal during operation period.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

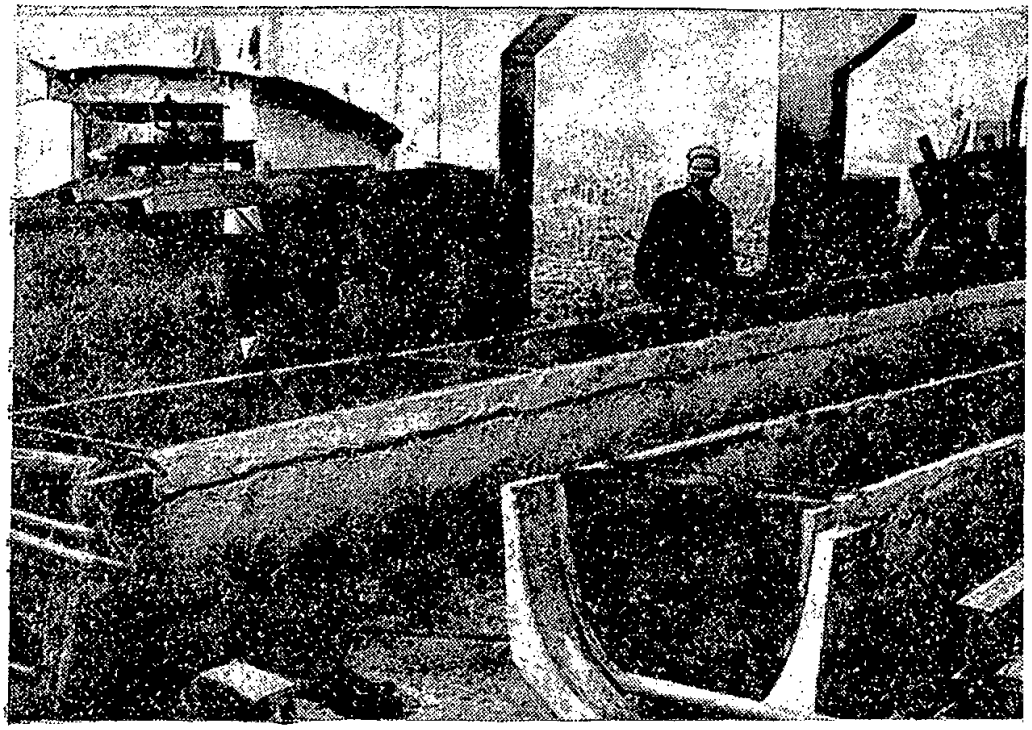

Fig. 18. Reinforced cement flume 9 *m* long with the capacity of 0,5 cubic meter per second.

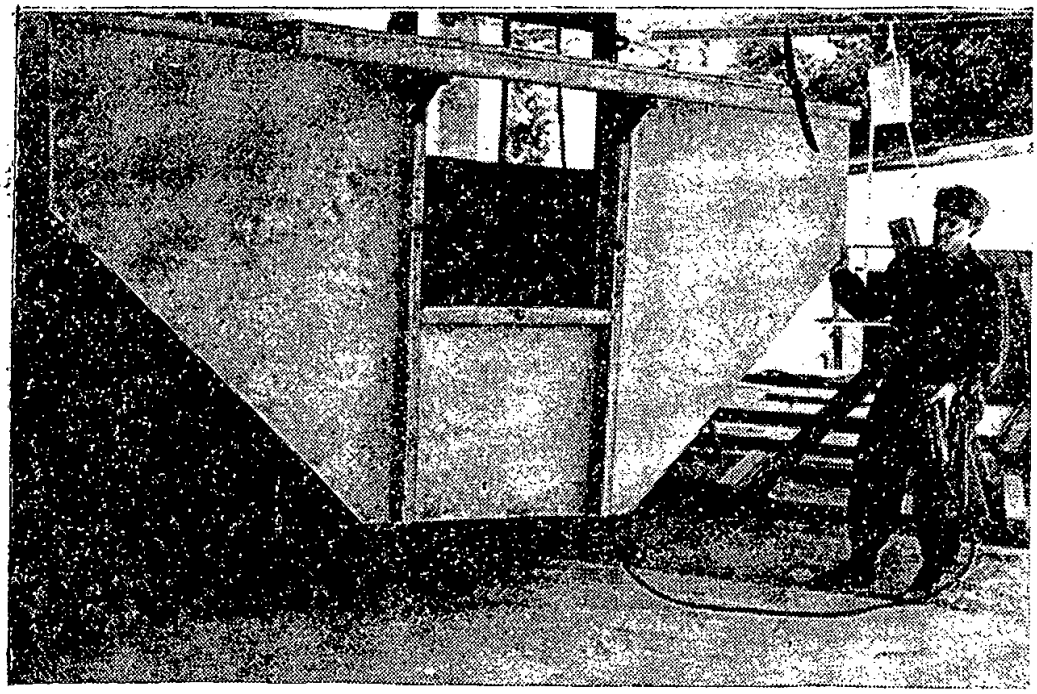

Fig. 19. Prefabricated reinforced cement gate-regulator with 3,4 *m* span for the capacity of 0,8 cubic meter per second.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

New reinforced cement slabs 2 *cm* thick were recommended for lining ditches in small farming network. The Laboratory worked out a scheme and a technology of producing the reinforced cement flumes of parabolic shape which are twice as economical as reinforced concrete. The dimensions of a flume are: 6 to 9 *m* long, 60 *cm* high and 80 *cm* wide in its upper part, its capacity being 0,5 cubic meter per second.

For minor networks the Laboratory has worked out prefabricated hydraulic structures of an economical shape. They consist of ribbed slabs and panels which are prepared as flat reinforced cement details receiving prefabricated ironconcrete ribbs.

Problem 6. **Hydraulic Machinery and Apparatus**

The **Laboratory of Hydraulic Machinery** studies serving conditions of water-hoisting machines for water economy of the Republic and questions of their rational utilization.

Propeller pumps of small capacity for pumping irrigation of Horezm and Kara-Kalpakia regions, shaft pumps for vertical drainage and for utilization of ground waters for irrigation purposes as well as cord and band pumps for pasture watering were created by the Laboratory.

This Laboratory is also busy with methods of choosing pumps for zonal pumping irrigation and for vertical drainage; estimation of hydraulic ram effect in pressure pipelines, theory of operation process in the cord and band water hoisting devices as well as the theory of vacuumless charging of propeller pumps.

The problems of the **Laboratory of Water Gauging Devices** consist in creating of new types of water gauge sets (tubular and surface gauge), automatic apparatus for recording and controlling irrigation water (hydrometers, distant transmitters, discharge indicators, discharge recorders, flow meters, etc.), and making use of the advantages of automatic and telemechanic inventions to solve these problems.

Besides that the Laboratory calibrates water gauging devices for all irrigation systems of Uzbekistan.

Among the recommended types are the following water gauges and automatic equipment designed by the Laboratory itself: an open gate regulator for collecting farm allocation water where the water discharge capacity reaches 2,5 cubic meters per second; tubular water gauge whose discharge water capacity reaches 1,5 cubic meters per second; surface water gauge-regulator to be applied in the farming whose water ca-

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

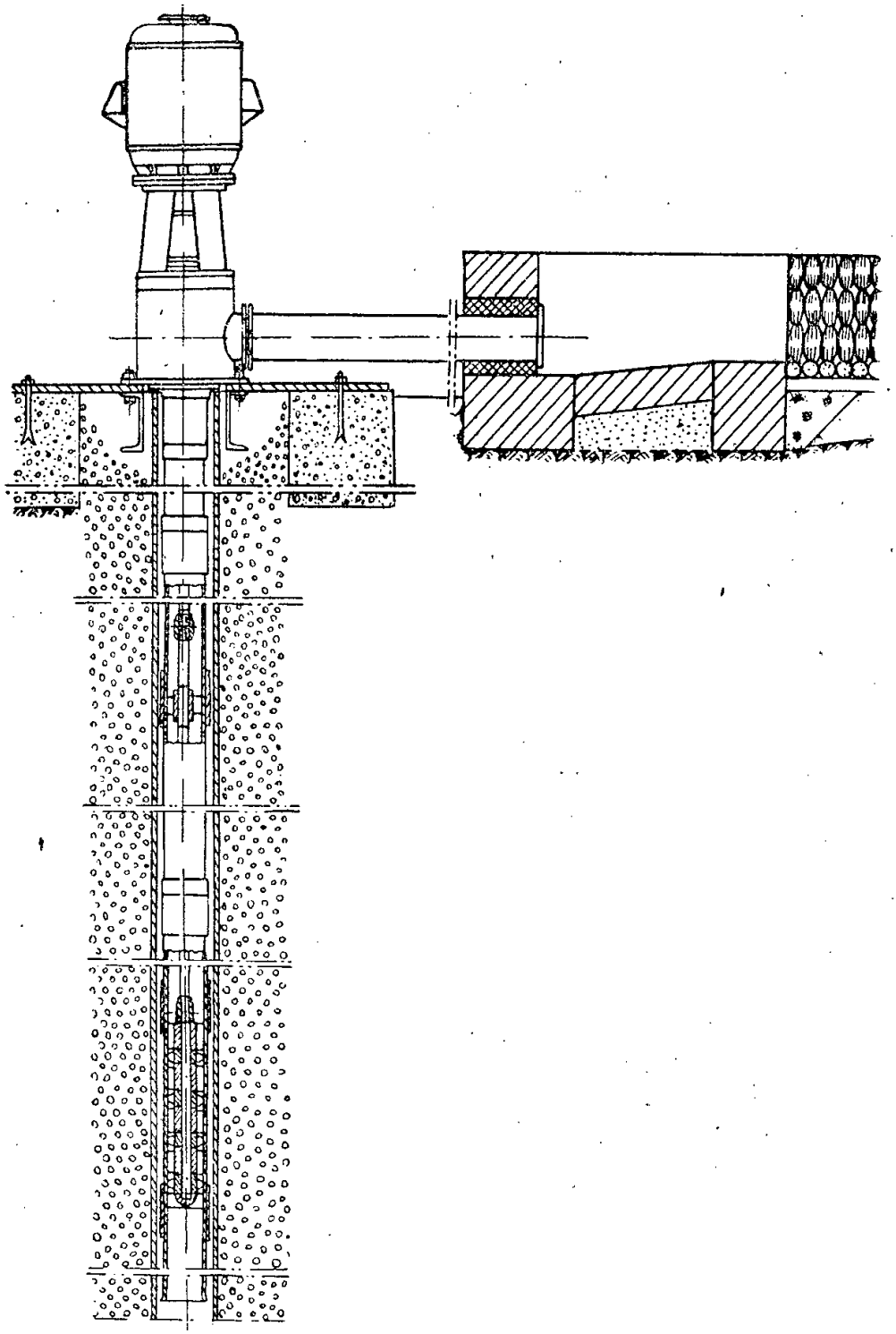

Fig. 20. Shaft propeller pump ВП-8 for vertical drainage and utilization of underground water for irrigation purposes.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

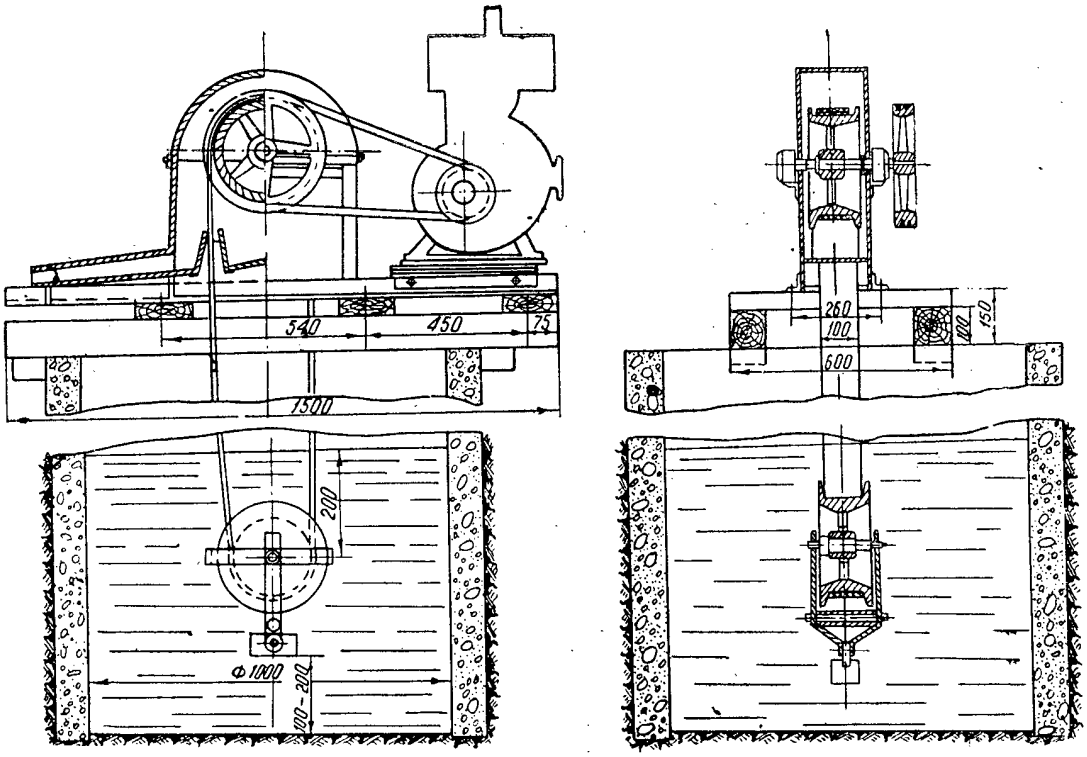

Fig. 21. Diagram of a band water-hoisting device of Л-100 SANIIRI type.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

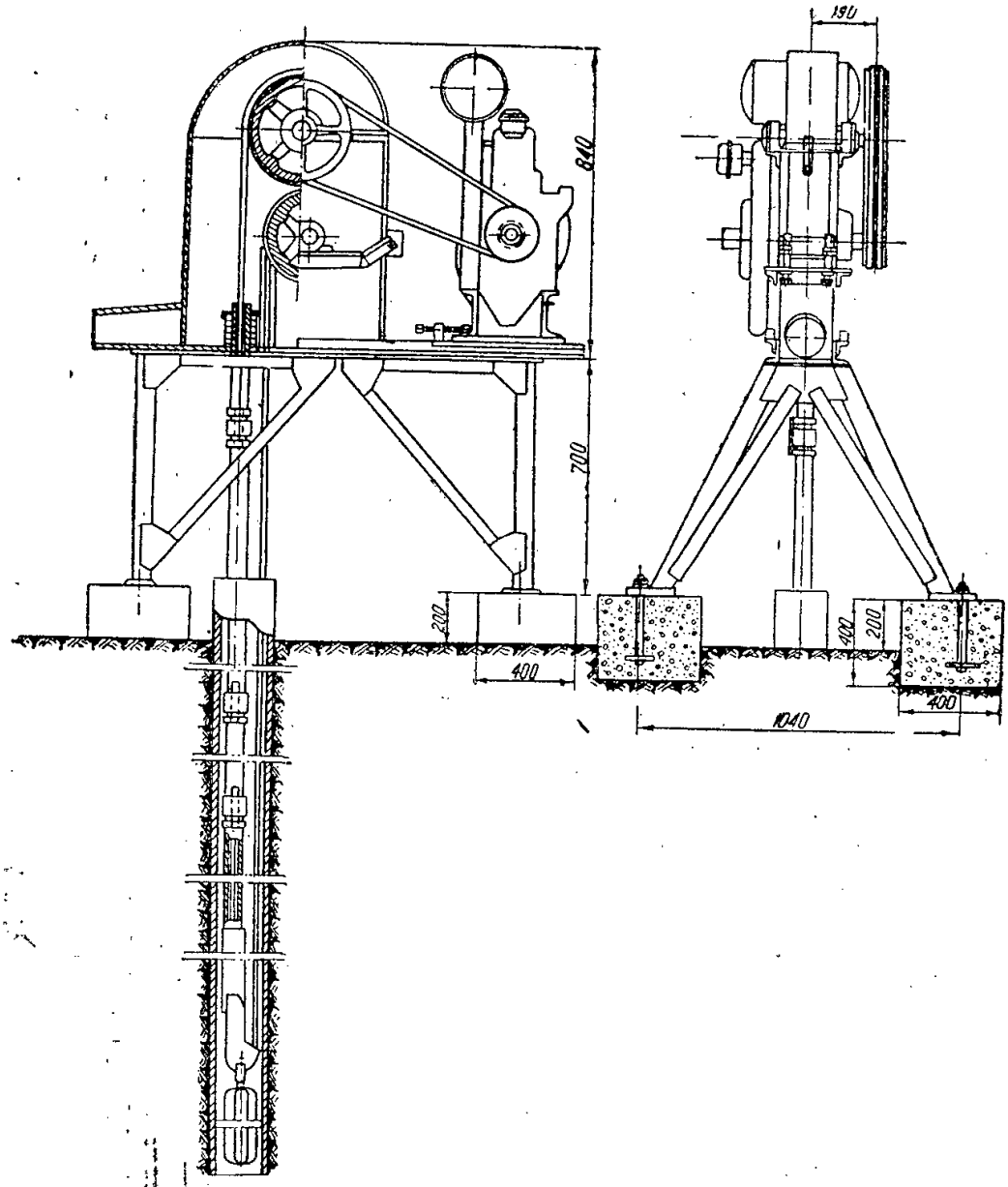

Fig. 22. Cord water-hoisting device 8CD for hoisting water from drills of small diameter located on pastures. Its capacity being 1,5–2,5 litres per second; the height of hoisting—30 *m*.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

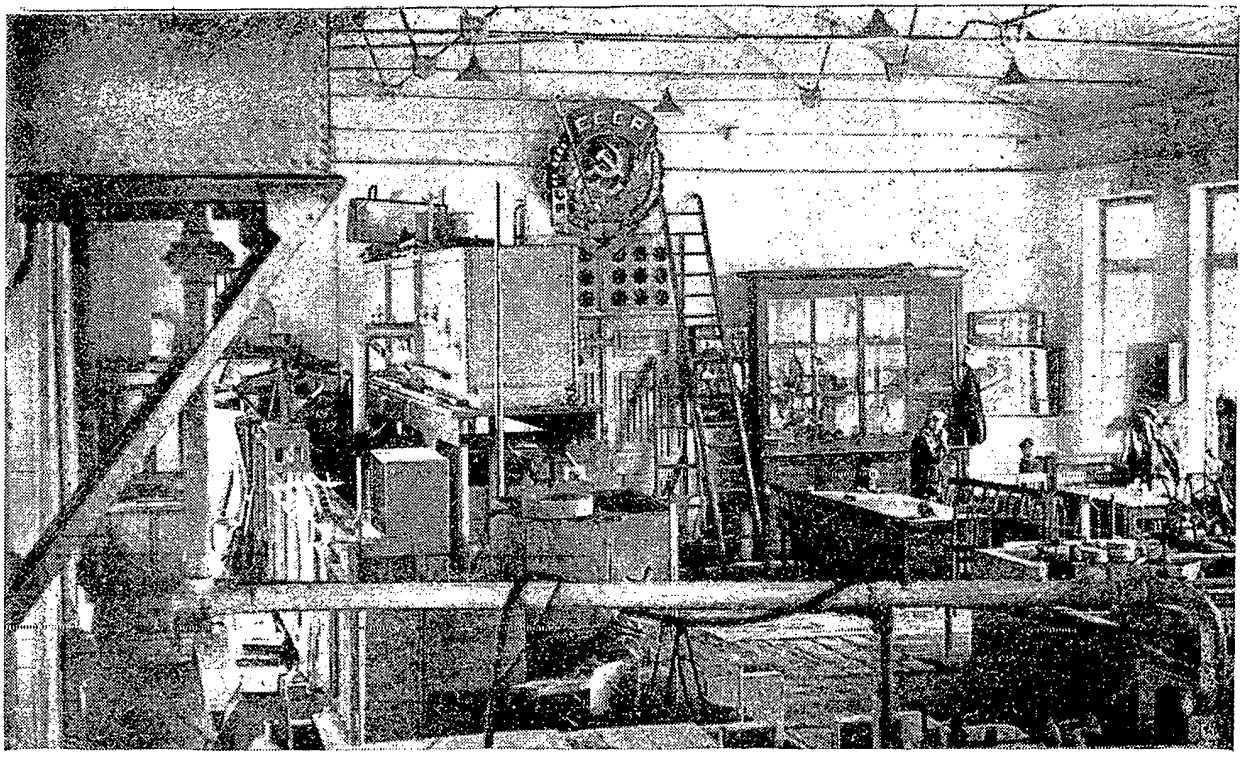

Fig. 23. Laboratory of Water Gauge Sets.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

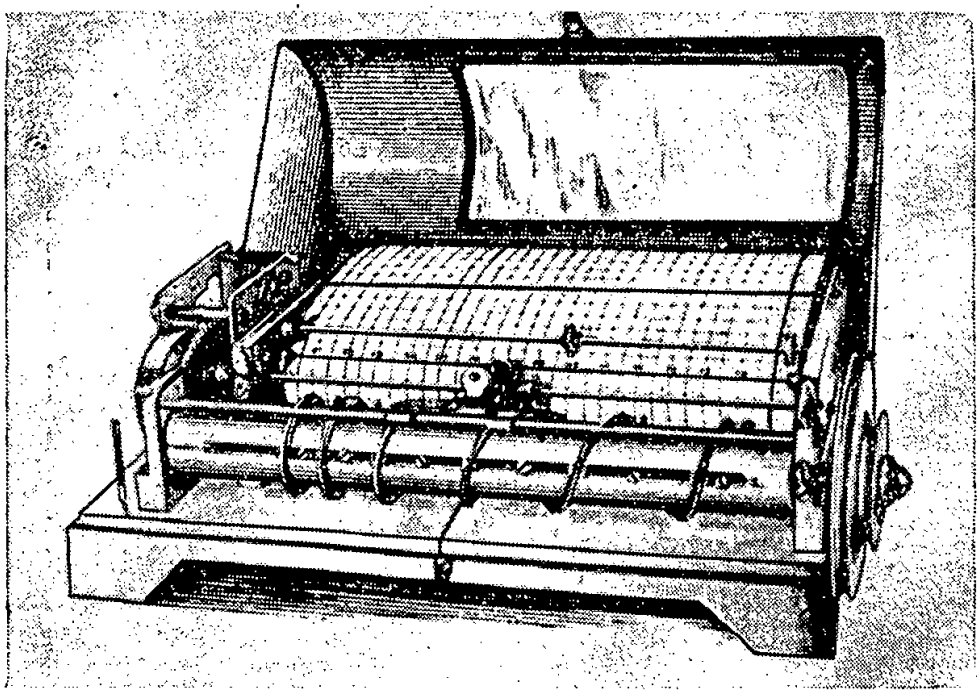

Fig. 24. Level-discharge recorder.

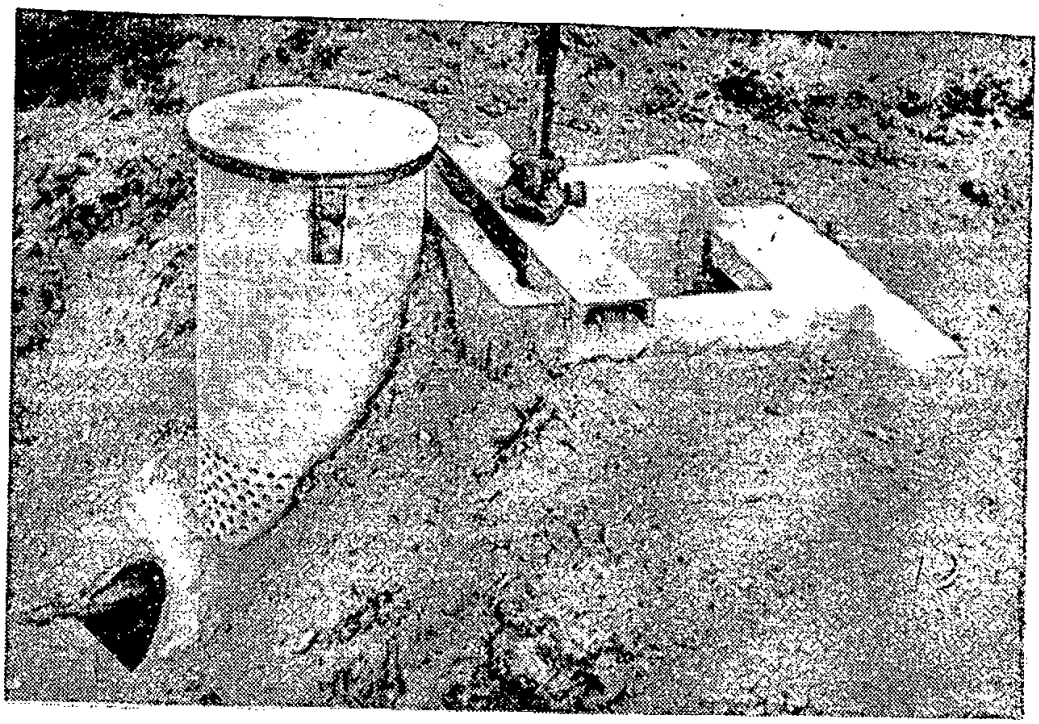

Fig. 25. Water gauge attached to open regulator.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

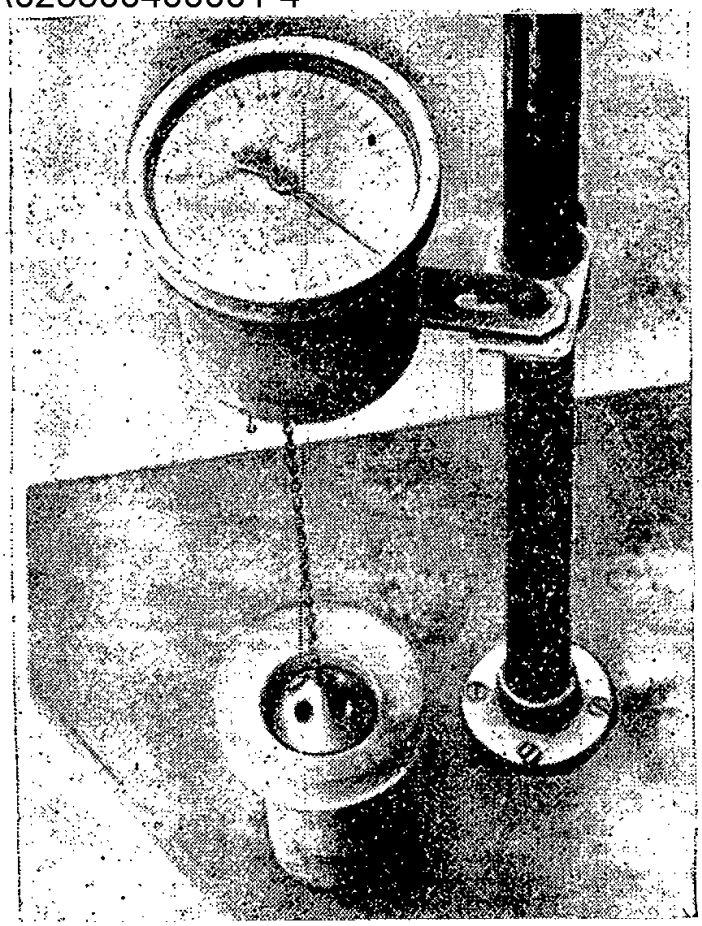

Fig. 26. Dynamic discharge recorder.

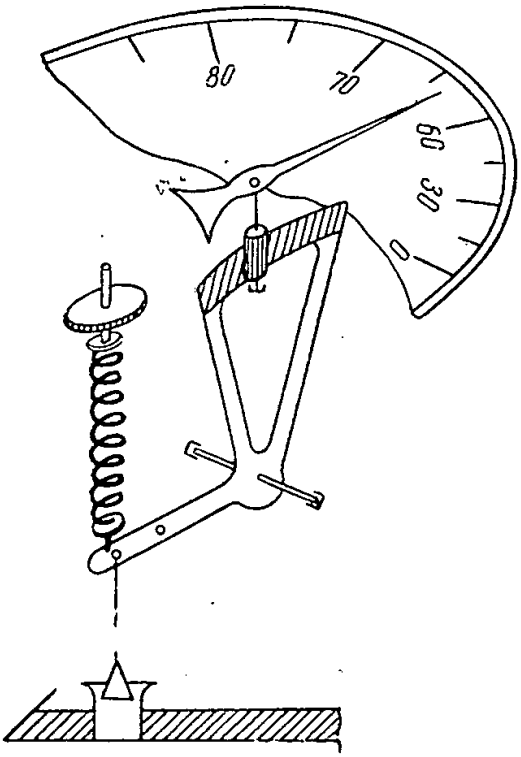

Fig. 27. Diagram of the dynamic discharge recorder.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

pacity runs to 250 litres per second; dynamic discharge indicator which operates on water level difference indicating discharge capacity per second; dynamic and rotary flow recorders indicating the supply of water during a definite period. Gates that are used for upstream sections such as those of Finke and Neyrpik type are being studied.

Over 10000 water gauging devices constructed by the Institute are in operation on the irrigation systems of the Central Asian Republics.

* * *

While carrying out scientific research work the Institute of Water Economy and Hydraulics is engaged at the same time in summarizing and propagating advanced experience, gathered at home and abroad, with the use of technic achievements in water economy, introduces them into service and is busy in educating scientific workers.

The Institute takes an active part in scientific congresses and conferences on hydraulic engineering and reclamation problems.

The scientific achievements of the Institute are published as books, proceedings and special editions by the Institute or in journals of the Uzbek Academy of Science: „Известия“ и Доклады АН УзССР and other scientific journals which deal with hydraulic engineering such as „Гидротехника и мелиорация“, „Гидротехническое строительство“ etc.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4

Chief editor

corr. member of the Academy of Science of the UzSSR
R. A. ALIMOV

На английском языке

**Институт водных проблем и гидротехники
Академия наук Узбекской ССР**

Edited by *A. V. Baklitzky*
Technical Editor *H. U. Karabajeva*

Сдано в набор 20/VII-61г. Подписано к печати 29/VII-61 г. Бумага $60\times92^{1}/_{16} = 1{,}0$ бум. л. 2,0 печ. л. Изд. л. 2,0 Изд. № 313/61 Тираж 600
Бесплатно

Типография Издательства АН УзССР, Ташкент, Хорезмская, 9. Заказ 793
Адрес Издательства: ул. Куйбышева, 15.

Declassified in Part - Sanitized Copy Approved for Release 2014/04/22 : CIA-RDP80T00246A025500400001-4