

# **WATER POWER DEVELOPMENT VOLUME I**

## **LOW-HEAD POWER PLANTS**

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2. Measures
3. Power flowing water
4. Utilizable power in seas and oceans
5. Potential water power
6. Potential and developed water power resources of the world
7. Energy capacities of reservoirs

#### Section B – History and Types of Water Power Development

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9. Classification of water power plants
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13. Characteristics types of development
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16. Economics of diversion canal types
17. Number of Units
18. General layout of diversion canal developments
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21. Protection against Silting
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23. Intake losses. Entrance loss and rack resistance
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26. Hydraulic design of the power canal. Economic considerations
27. Conditions of stable regime in power canals
28. Surges and waves in channels
29. Ice troubles in power canals
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- 47. Specific speed and classification of turbines
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- 52. Fundamental principles of draft-tube design
- 53. Irrotational vortex in the draft-tube. Special types of draft tubes
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- 64. Generators
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- 66. Powerhouse superstructure. Machine hall
- 67. Service buildings, dwelling settlement and other appurtenances
- 68. Basic principles of structural analysis of the powerhouse
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- 72. Structural design of entrance flume and spiral case
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