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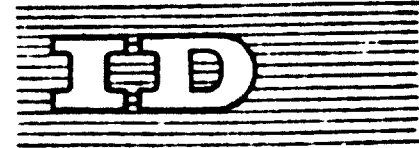
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Expert Working Group Meeting  
on Modernization and  
Mechanization of the Salt Industries,  
based on Sea Water in the Developing Countries  
Rome, Italy - 25-29 September 1968

A SUMMARY OF THE SALT INDUSTRY IN TURKEY

CANALTI SALT WORKS<sup>1/</sup>

by

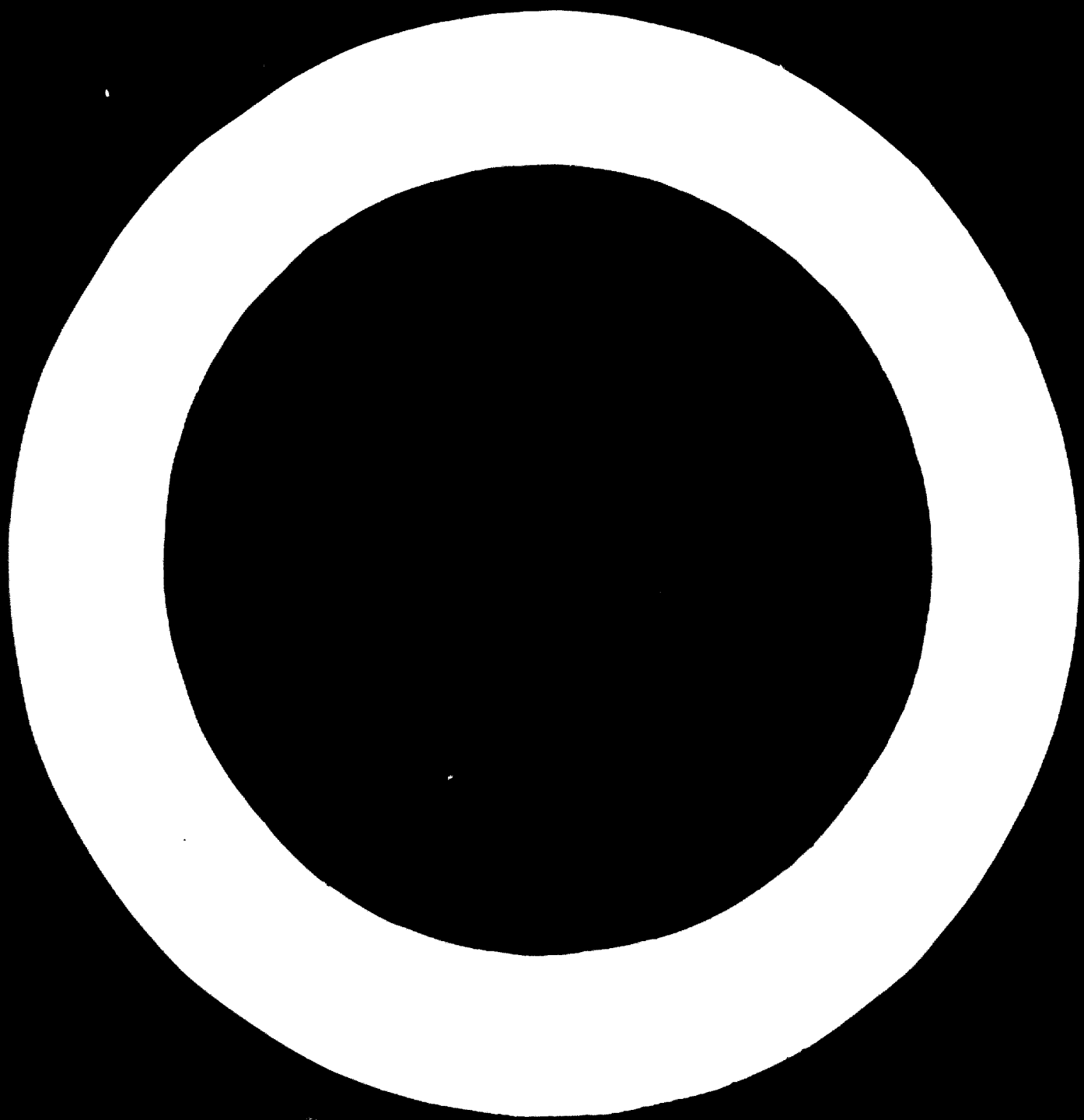
Sevket Saltan  
Deputy Manager  
Operation Group

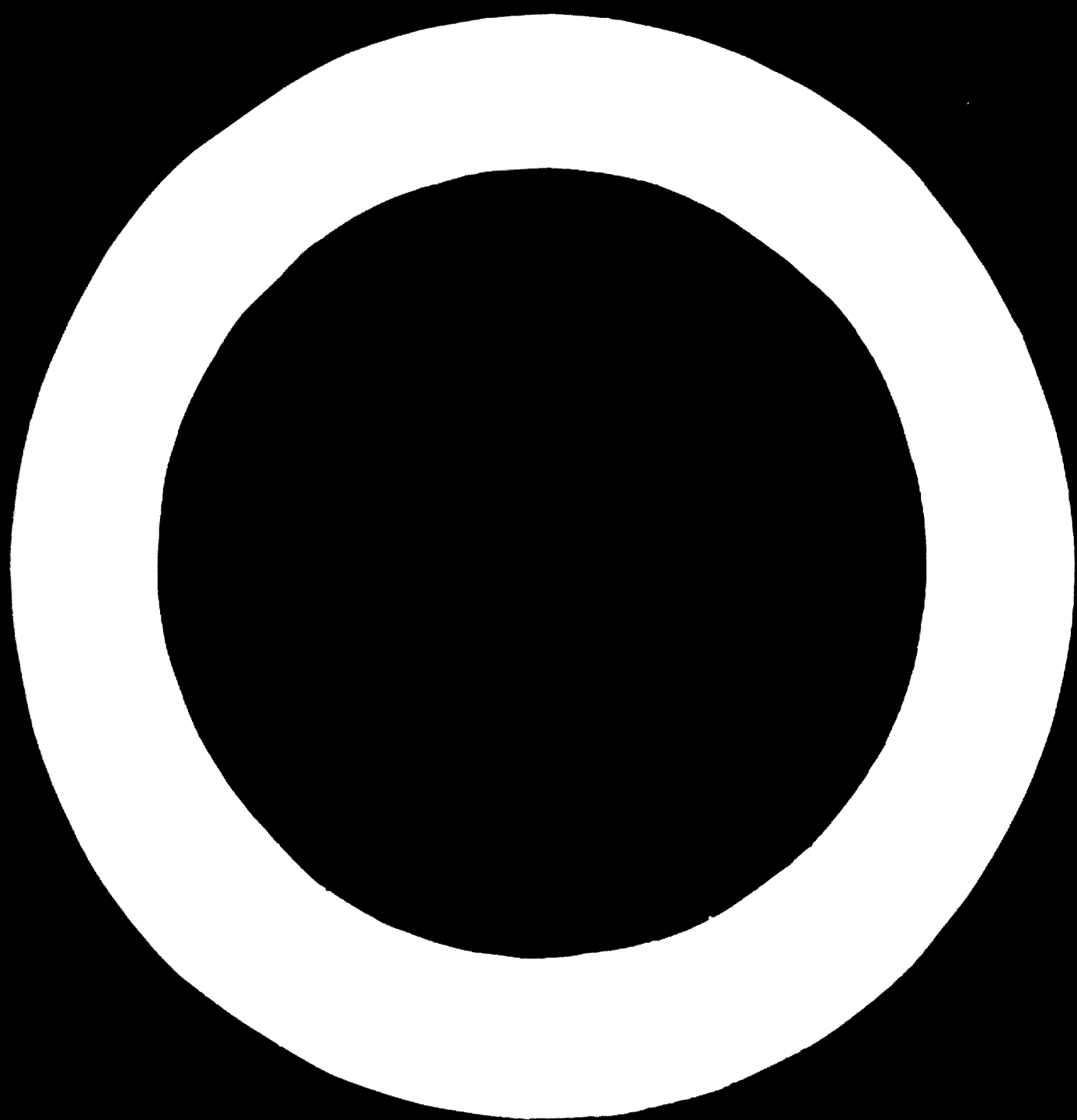
and

Cahit Dkar  
Manager  
Salt Production Dept.

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<sup>1/</sup> The views and opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the secretariat of UNIDO.





1. Production of salt from sea water in the Camalti salt works is not being performed under a completely mechanized system.
2. Water brought from the sea up to the pumping station through the canal is pumped to the evaporation area by means of four powerful centrifugal pumps operated by diesel engines and then taken to hot-water pans after they have matured.
3. The water is stirred by wooden water-wheels, called Timpana, operated by electric motors. As salt begins to crystallize during the passage of matured water of 25° to 27° C pumped to the crystallization area, it has been found practical to use these water-wheels in the action of water and we do not contemplate using centrifugal pumps for replacement of these water-wheels.
4. Roller-levelling of the salt-crystallization area is first done with motor rollers, and then with stone rollers.
5. Our motor rollers are machines of very slow movement and of the type where the operator directs them by walking beside the same.
6. We have already made attempts to replace these by new quick-action rollers which will roller-level an area of 10 metres at once. Production of salt in our works is performed in a primitive manner, i.e., by human labour. Formerly, "harvester" salt scraping machines were provided for mechanization of the salt collecting process, but these machines were found to be unsuitable for the purpose by reason of their scraping the salt by way of operating in the slurry, their damaging the crystallization area, and their leaving a part of the salt in the area, and accordingly they have not been used.
7. Land of our salt works is of capacity to carry 500 grams per cm<sup>2</sup>. Operation of heavy vehicles on such loose ground has been found unsuitable, and at present we are studying replacement of the above machines by salt scraping machines moving on layers of salt, which are used in some of the Mediterranean salt works. If it will be possible to use this equipment in our salt works we will mechanize the salt collecting process.
8. Loading of salt unto the forwarding wagons from the piles is being done by mechanical means. But the de-pilers we are using for scraping of the salt from the piles are very slow, non-efficient and complicated machines.
9. We are making studies for replacing of these by those that are more efficient and simpler, and for increasing of the forwarding capacity.
10. Construction material used in our salt works is wood. Gates of the ponds are constructed by filling of clay slurry between the two wooden compartments and insulation is provided in this way.

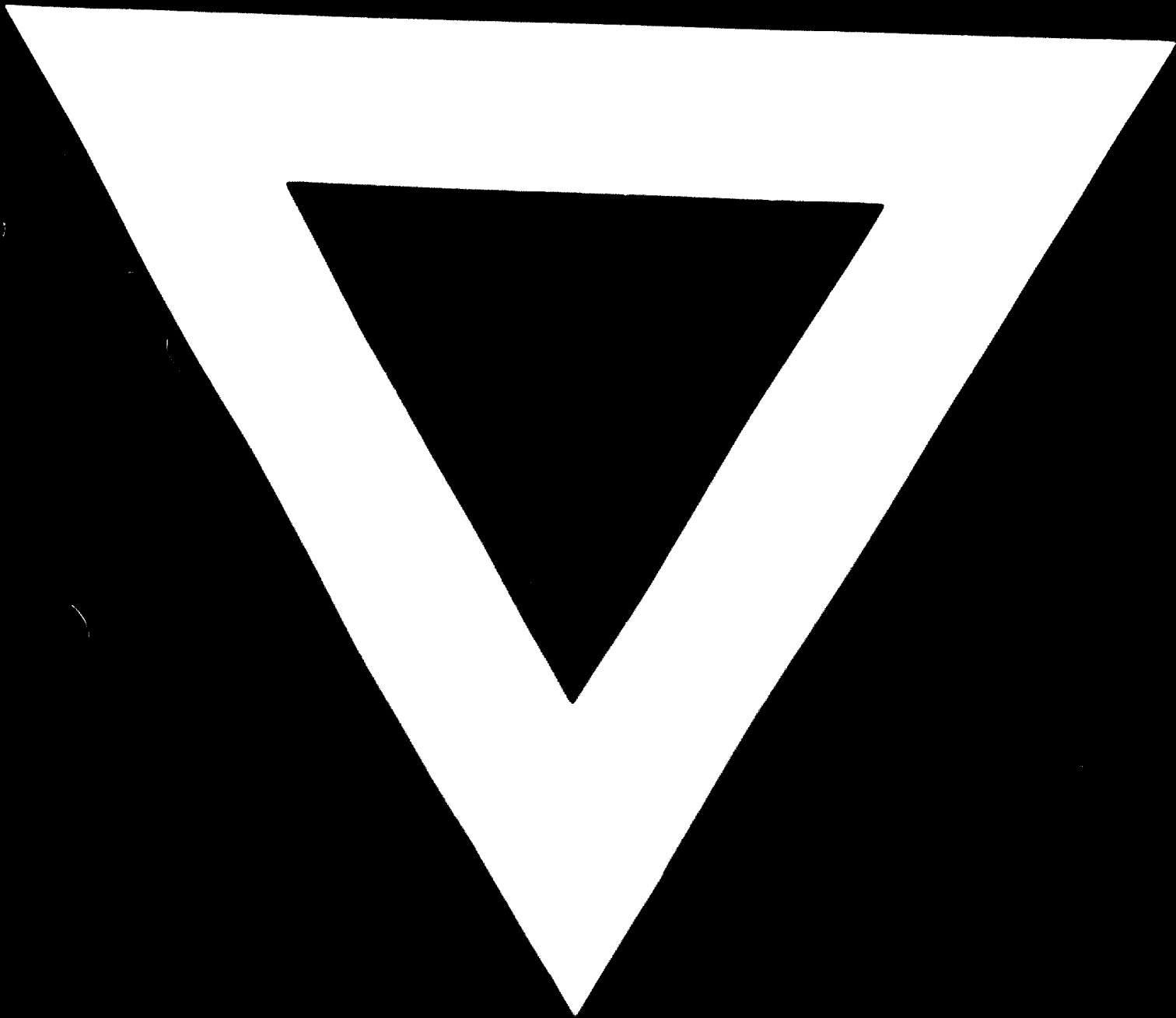
11. Loading by sea is performed by loading of salt automatically weighed by scales, unto the transports by an electrically driven conveyer belt. In this way, our loading by sea is completely mechanized.

12. Power at the present is obtained in our salt works by generator groups. Plans and estimates for supplying of power for our salt works from the high tension line at a distance of 8 kilometres have been prepared and power will be supplied from this line within the near future.

13. Generator groups supplying power at the present, and locomotives employed in transport and extraction of salt are operated by diesel fuel. Therefore, the most important fuel used in the salt works is diesel fuel.

14. Branches of industry using raw salt in our country are the canning industry, the petrol-chemistry industry, the textile industry, the soda industry (under formation), the leather and the chlorine industry.





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