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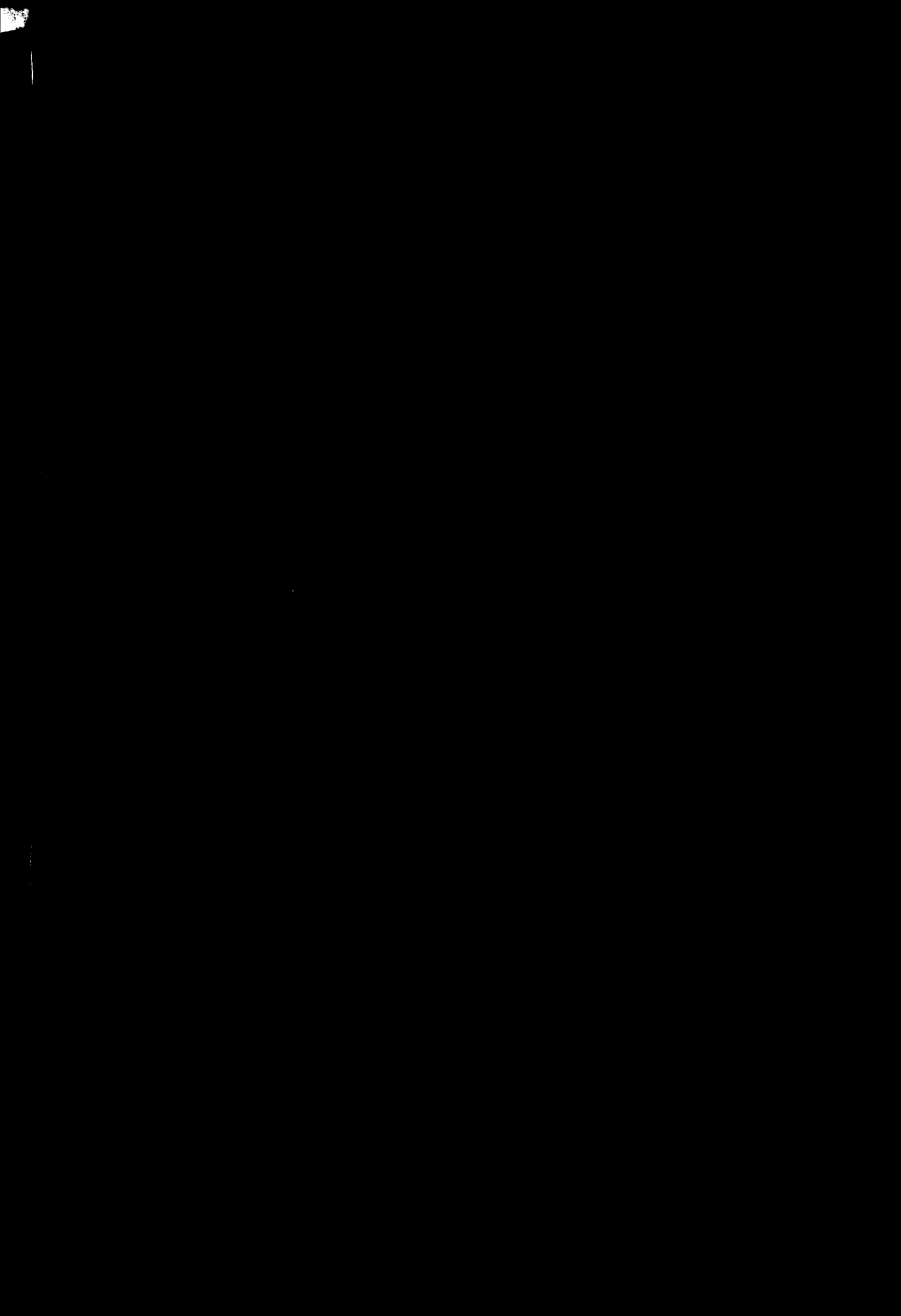
Maintenance Week in Uruguay,
Montevideo, 21 - 26 May 1973.

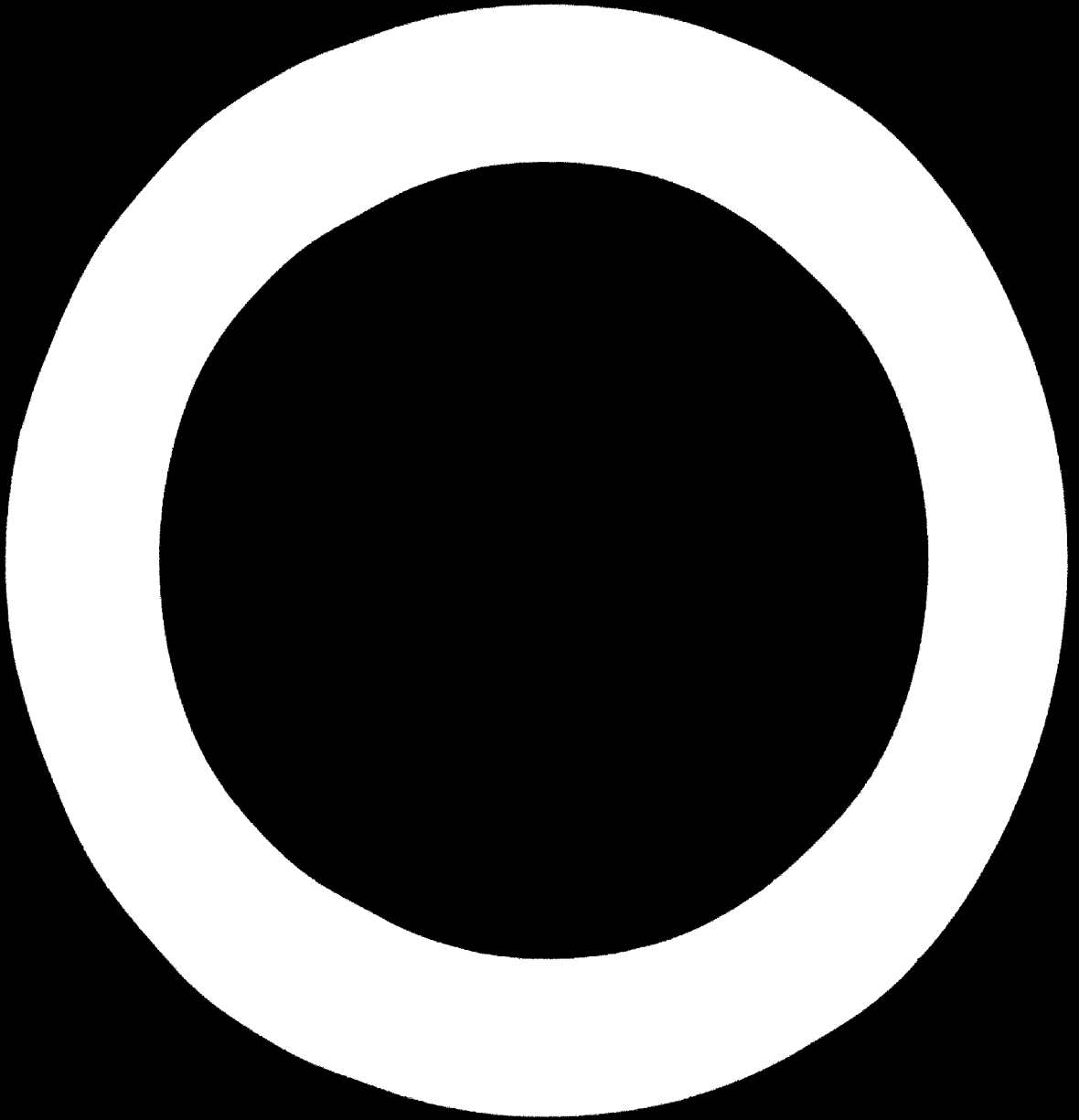
MISSION REPORT ;
Visit to La Paz, Bolivia
14 - 17 May 1973

by

Gert F. Emspail
Engineering Industries Section
Industrial Technology Division

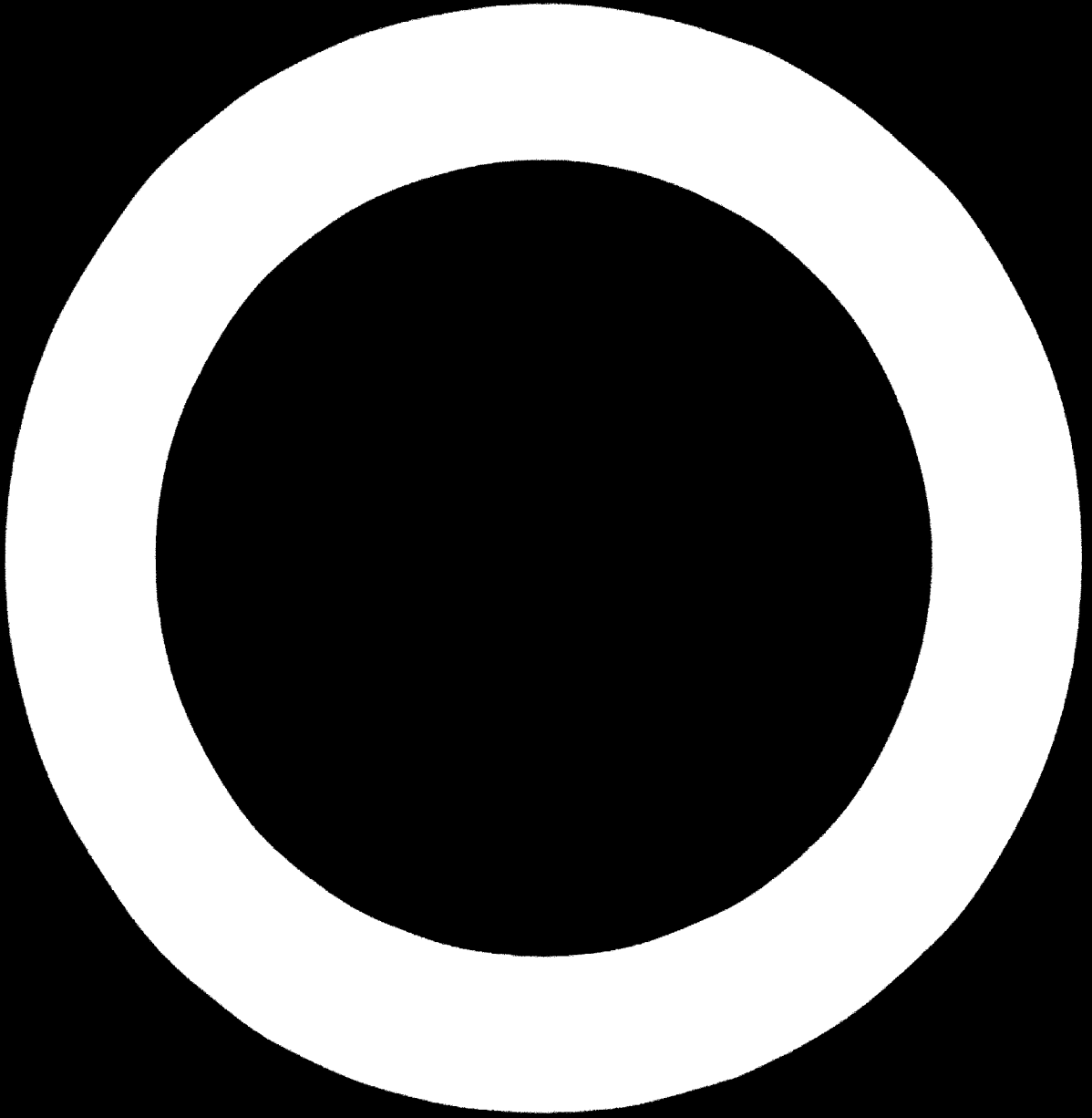
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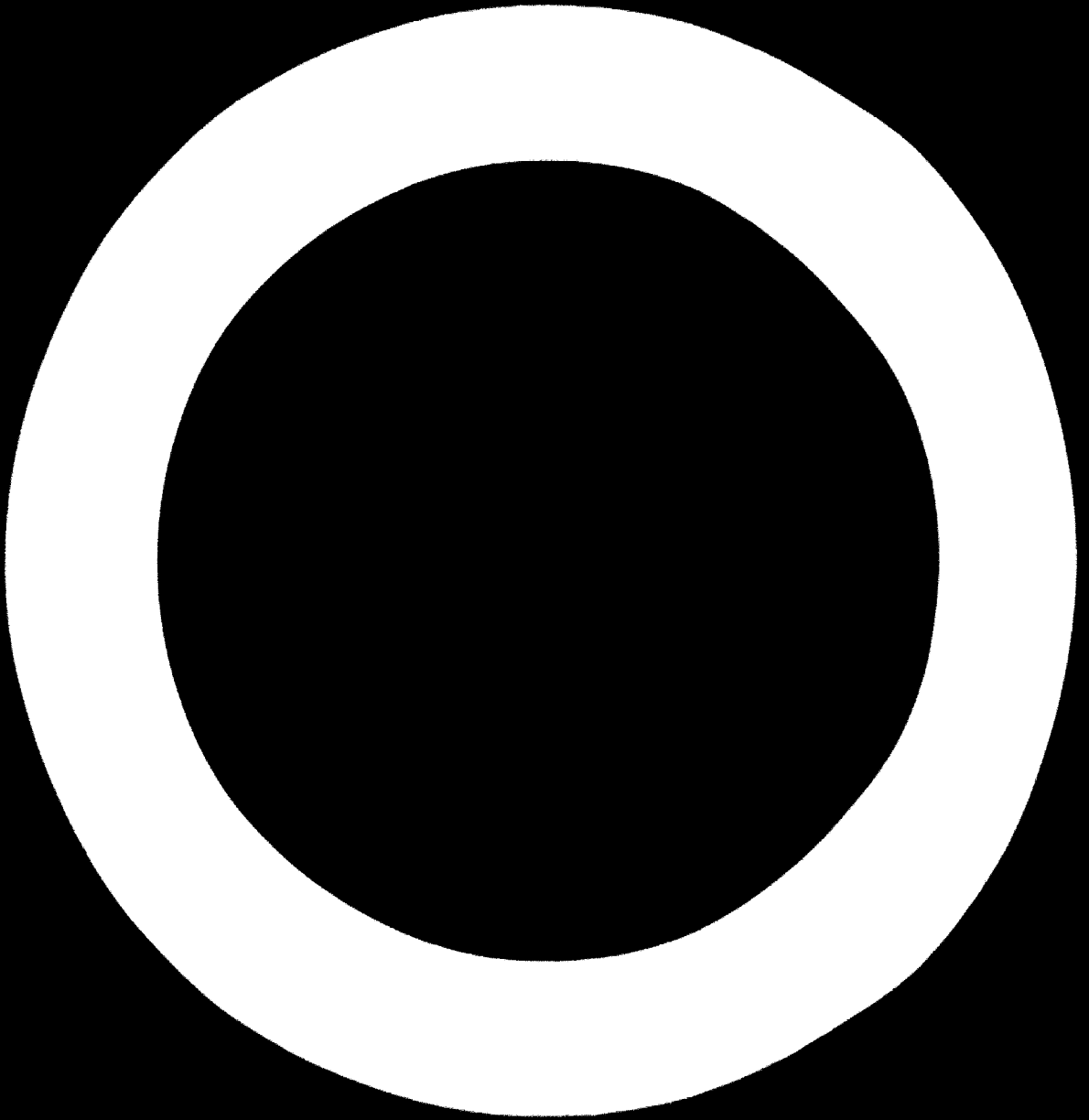
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I. INTRODUCTION

1. This report covers my brief visit to La Paz, Bolivia, between 14 and 17 May 1973 for discussions with the Resident Representative and Government officials concerning the organisation of a Maintenance Week in that country. UNIDO's new approach - appended as Annex I - toward execution of future events in a more practical manner, to resolve specific problems of maintenance and repair affecting selected industrial sectors, had been thoroughly explained to the authorities concerned and fully met with their approval.
2. But the main purpose of my mission to Latin America was to attend the Maintenance Week in Uruguay, held in Montevideo from 21 to 26 May 1973, an account of which is also given in my report. This event was, in all respects, well organized by the Productivity Centre of Uruguay with the capable assistance of a committee formed by six engineers to accomplish the necessary tasks. It showed a large and enthusiastic participation of engineers and management personnel from diverse branches of industry. Broad news media coverage was given in the press, radio and television, both before and during the seminar, dealing with major problems facing the country in the maintenance and repair field.

UNIDO was represented, in addition to myself, by two engineering consultants from Spain, Doctors Urra-Ruiz and Comba-Morayta, who delivered excellent free lectures on various aspects concerning maintenance and repair at the national and plant levels. They also took an active part in both scheduled and unscheduled round table discussions. The complete programme for the Maintenance Week including the agenda and names of local experts with the respective topics of their speeches is appended in Annex II.



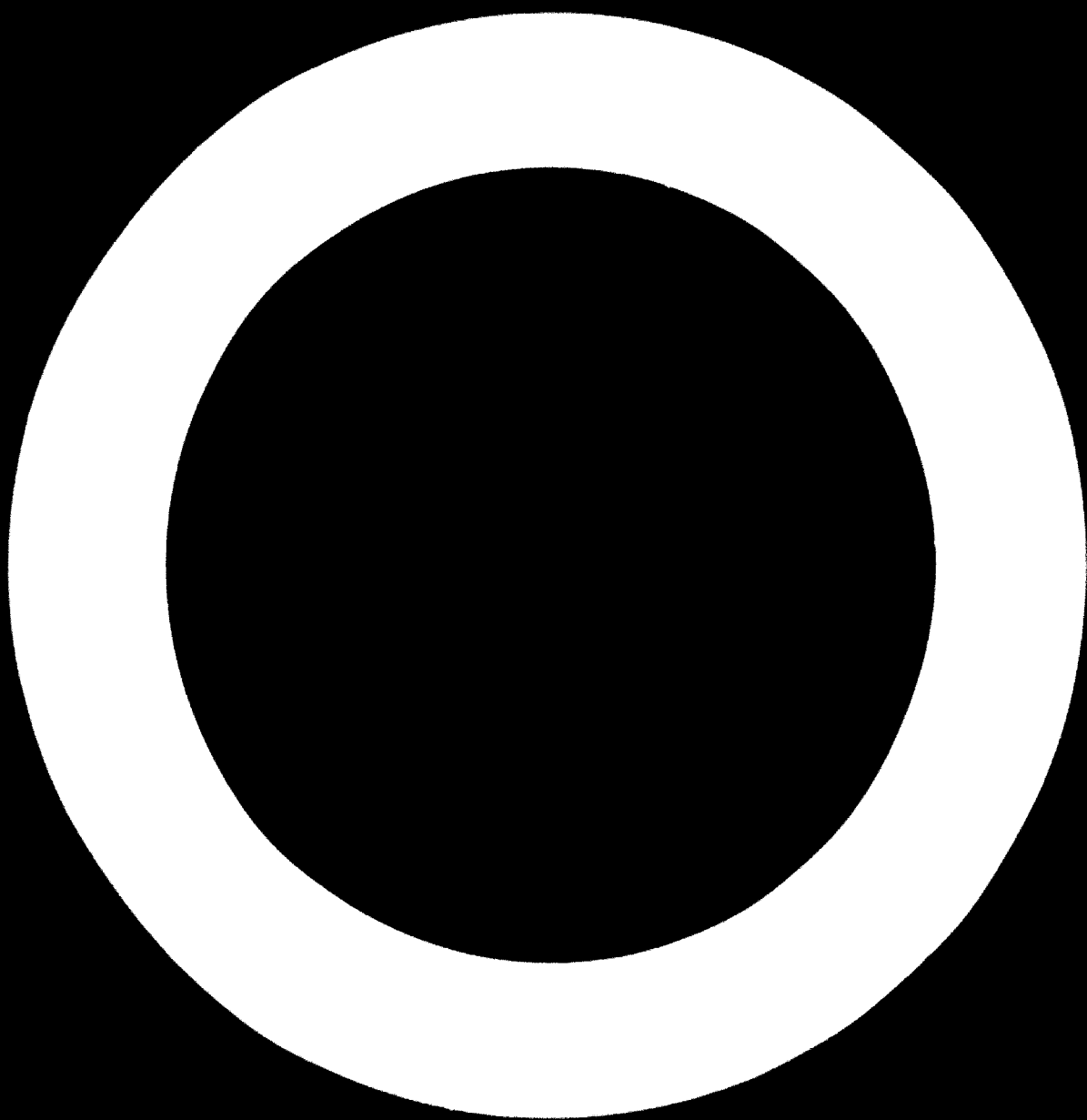
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II. PREPARATION TO ORGANIZE MAINTENANCE WEEK IN BOLIVIA

3. On the first day of my short stay in La Paz, discussions were held at the UNDP Office with the Resident Representative, Mr. J. Pascoe, and the Programme Officer, Mr. F. Lyone, to clarify all points which had led to the long delay in scheduling the Maintenance Week in Bolivia. Lack of proper communication between UNIDO and the Government authorities appears to have resulted in the past from the following facts:

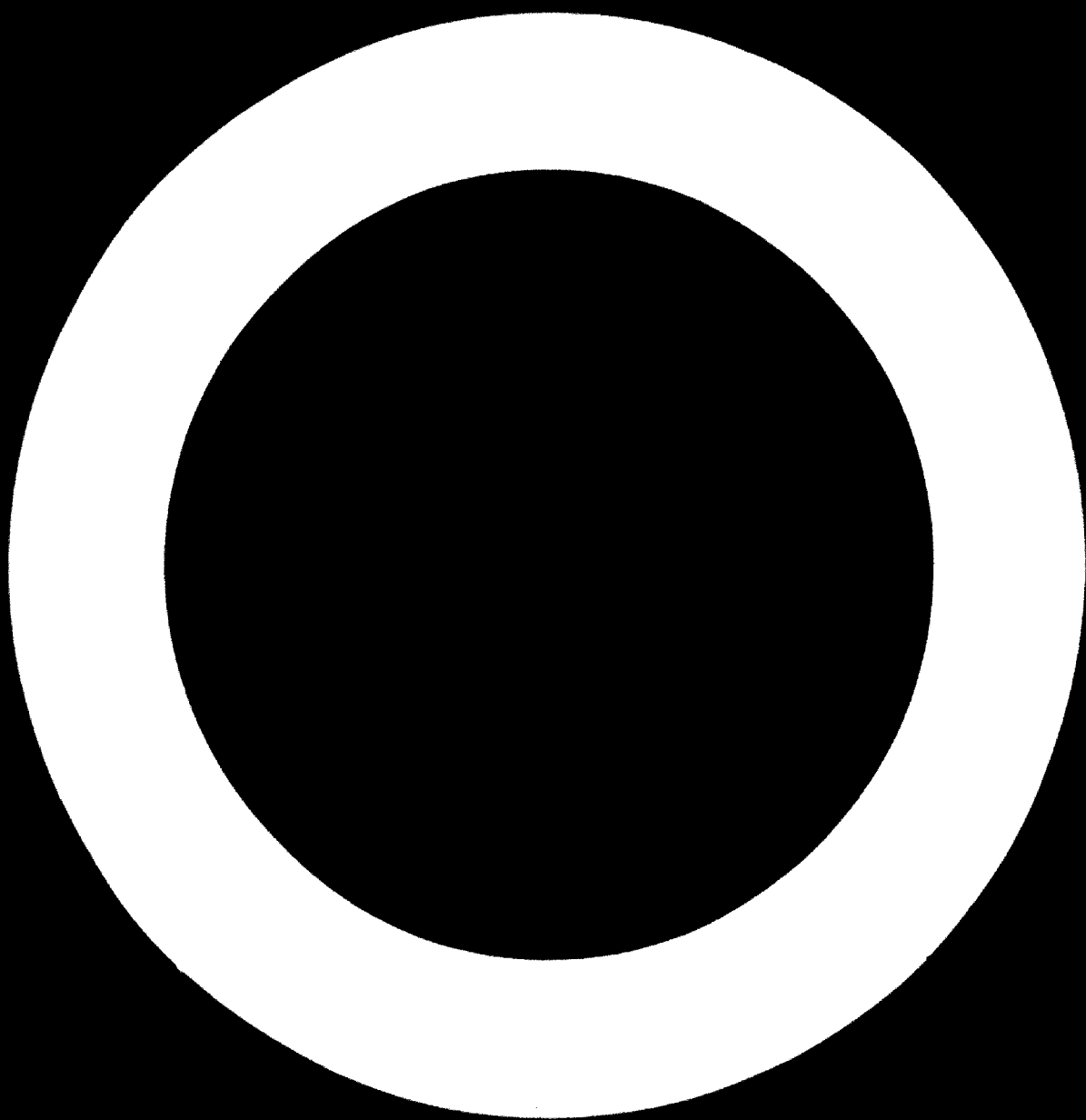
- (i) Our direct correspondence with Mr. Brosovich of the Corporación Boliviana de Fomento (CBF), the alleged counterpart for all organizational matters concerning the Maintenance Week, suggesting a tentative programme and asking for details and comments. Although this communication was copied to the Resident Representative, any approach to responsible officials should rather have been channelled through the UNDP office.
- (ii) Instead of a reply to our inquiry, a letter was received from Mr. Brosovich stating that the matter was passed on to the Government Departments concerned. As late as 31 January 1973 a cable arrived from Mr. Pascoe, in response to our urging, indicating simply that the Government is approving the programme, but still without providing the requested details on subjects of prime interest to the country which should be discussed during the meeting.
- (iii) The authorities were never directly informed of the procedures and time required to finalise the schedules for the Maintenance Week and, therefore, misjudged the date when it could possibly take place.

After apologising for any misunderstandings we may have caused, I briefly explained UNIDO's new approach toward holding Maintenance Weeks in future - a subject which was thoroughly discussed the following day with the authorities concerned.



4. For the second and last day of my visit a meeting was arranged by Mr. Lyons to be held at the Secretaria del Consejo Nacional de Economia y Planificacion (CONEPLAN) with Dr. Armando Loayza M., Director Technical Cooperation Unit, and his assistants Dr. Jenny de Grandchant and Lic. Bernardo Prado. I regretted the circumstances already described in the preceding paragraph and also reiterated all steps necessary prior to setting a date for the Maintenance Week in Bolivia, which realistically could not be held before the end of this year. On the basis of the required time consuming preparatory activities which were explained in details, the suggested schedule for the event was mutually accepted with an understanding that all parties involved will do their utmost to expedite actions.

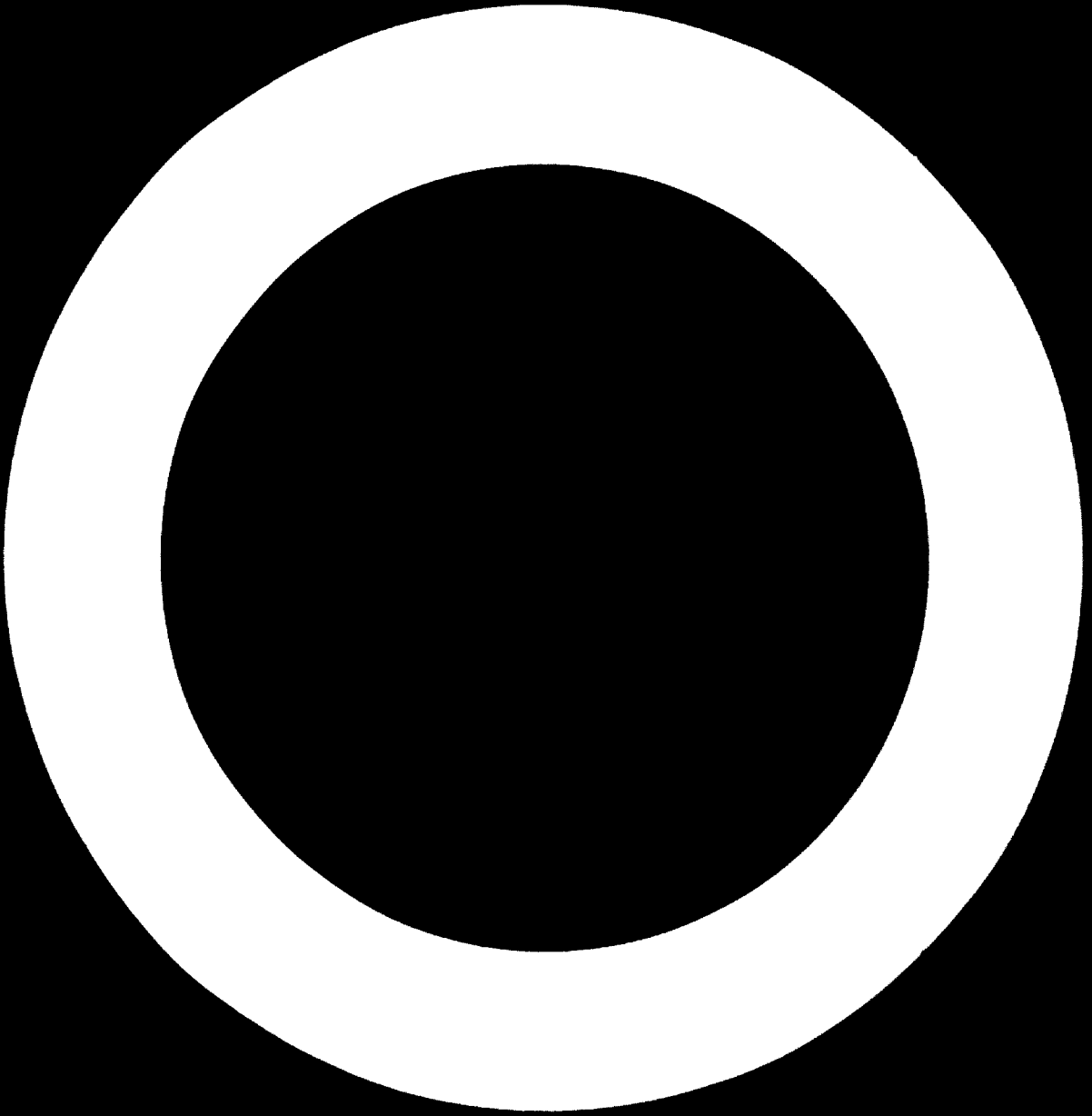
UNIDO's wish to devise a more effective programme for future Maintenance Weeks was conveyed to the officials and the new concept fully supported by the Director of Technical Cooperation Unit. According to Dr. A. Loayza the three sectors selected by priority will be the mining, agriculture and transportation industries. As regards locating qualified local experts in these fields to conduct the required field studies, there exists allegedly no problem; it may even be possible to assign 2 to 3 local experts in each of these industrial sectors to collect information in a co-ordinated effort to speed up the reports. Though it was decided only in January 1973 that CONEPLAN will have overall responsibility of the counterpart, other organizations will be designated to form a committee for handling all details of the event. UNIDO is to be notified shortly of the actions taken in that respect, the names and functions of the local experts selected, as well as of all other decisions and steps taken after a thorough study of our new programme proposal.



5. My offer to leave with Mr. Lyons for copying and/or translation into Spanish some papers, believed to be of interest and help to the authorities concerned in their planning of the event, was very much appreciated. CONEPLAN is to receive the following documents from the UNDP office:

- (i) UNIDO's new approach to the Maintenance Week programme and list of expected counterpart contributions.
- (ii) Sample questionnaire on plant maintenance (for sectorial field study).
- (iii) Guidelines for diagnostic studies on maintenance in factories.
- (iv) Programme of Maintenance Week in Uruguay (21 - 26 May 1973).

The meeting closed in an amiable atmosphere of having reached full agreement on all points under discussion. This appears to have demonstrated, once again, the importance of personal contact in contradistinction to correspondence which, sometimes, may lead to seemingly irreconcilable indignation of the parties involved. In conclusion, I should like to express my sincere gratitude to the Resident Representative, Mr. Pascoe, for the support given to me by the staff of the UNDP office in La Paz, in particular by Mr. Lyons, the Programme Officer, whose assistance will be indispensable in co-ordinating the matters discussed and follow-up action promised by CONEPLAN in his presence. Information on this preparatory work by local authorities is an essential prerequisite for our participation to help finalising arrangements for the Maintenance Week in Bolivia.



III. MAINTENANCE WEEK IN URUGUAY

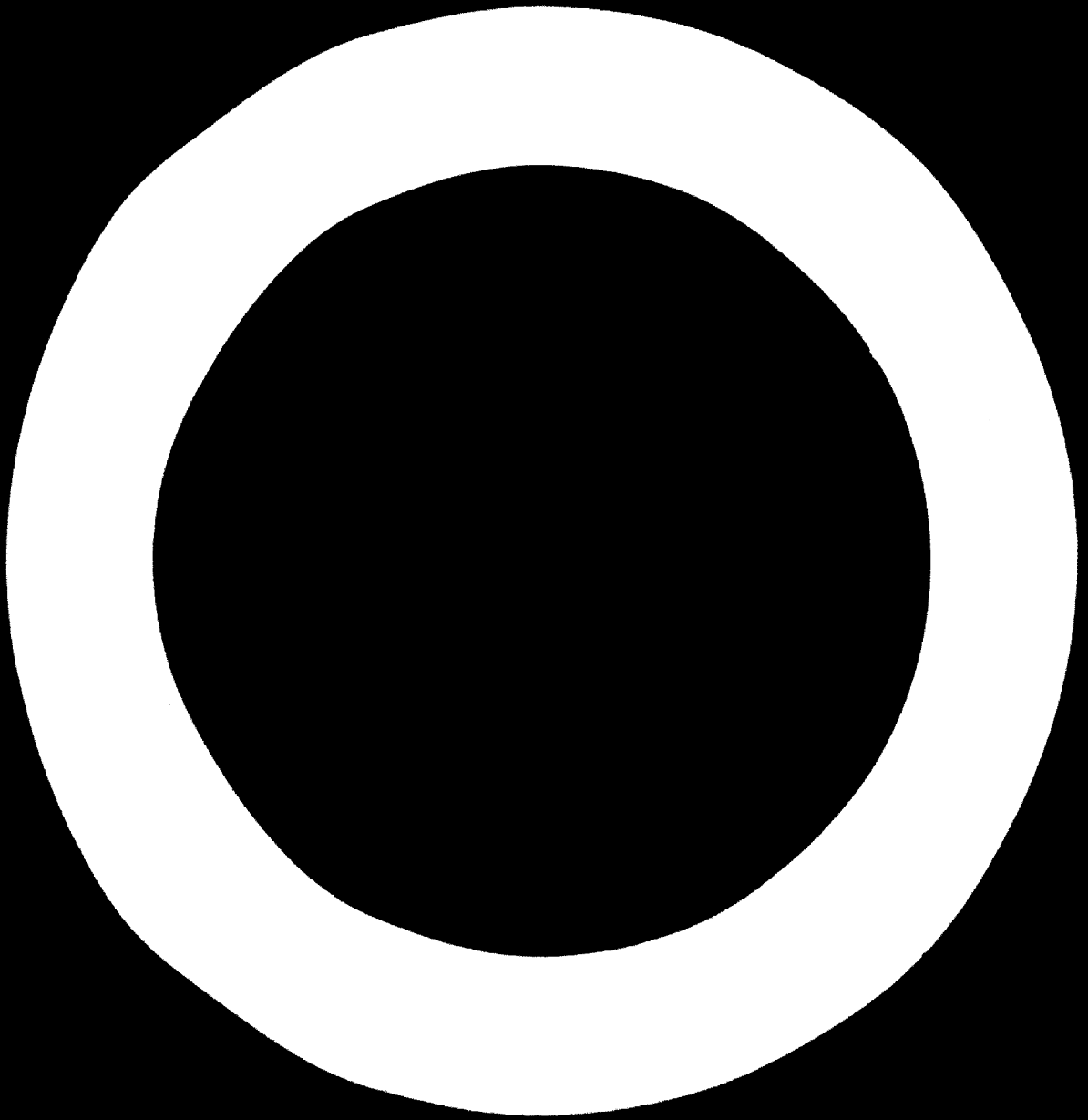
6. This event lasted six working days and took place in Montevideo between 21 - 26 May 1973. It was very well organized by the Centro Nacional de Productividad del Uruguay (CPU) under the able guidance of its Director General, Prof. Anibal Boccardi. A working committee of delegates from the Ministry of Industry and Commerce and CPU, as well as representatives of the UNDP office and former UNIDO Fellows assisted in the preparation of the programme which consisted of fourteen sessions followed by round table discussions.

The major subjects dealt with by the speakers included:

- National maintenance policies;
- Administration and organisation of maintenance;
- Spare parts in connexion with maintenance problems;
- Modern maintenance control techniques;
- In-plant maintenance schemes;
- Importance of maintenance training;
- Training possibilities at national level;
- Instruction and training in maintenance;
- Maintenance of agricultural machinery;
- Maintenance of civil engineering machinery;
- Maintenance of automotive machinery;
- Maintenance in the refrigeration and food canning industry;
- Maintenance in the textile industry;
- Maintenance in the leather industry;

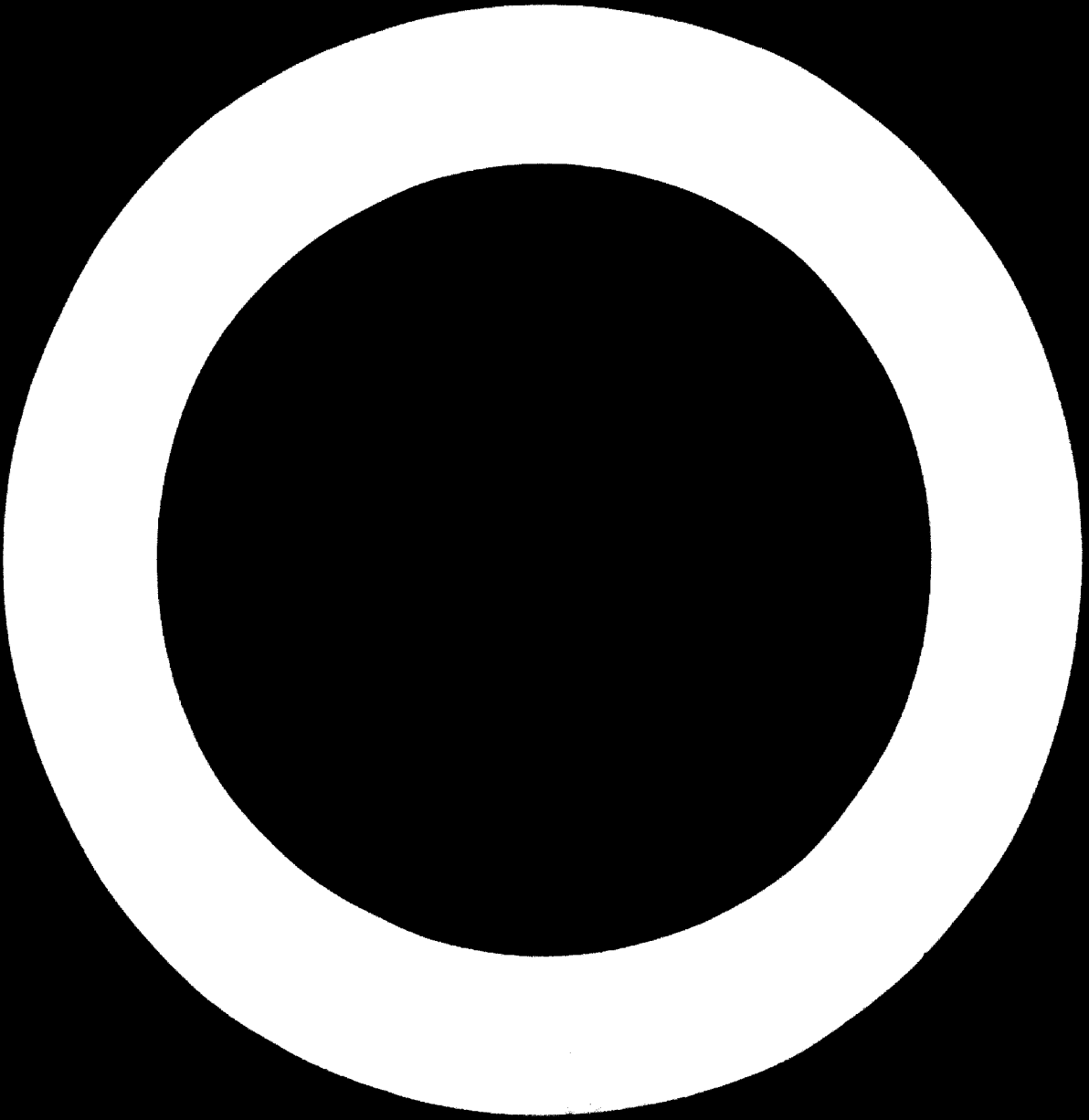
Any queries or specific problems relevant to the topic under discussion were taken up by the speaker and/or other participants of the round table forum.

Following the working sessions at the CPU, visits to three large industrial enterprises in Montevideo were arranged by the counterpart organisation. I had the pleasure to observe efficient maintenance management at an Oil Refinery (A.N.C.A.P.), automotive and tobacco industries. These examples, however, are not indicative of maintenance and repair practices in Uruguay, where 81 % of all industrial enterprises employ only from 1 to 9 workers.



7. The Maintenance Week was officially opened with statements by Prof. A. Boccardi, Director General, CPU, Mr. H. Navajas-Mogro, Resident Representative, UNDP, and myself, representing UNIDO at the conference. This opening session was attended by over 50 participants, a number which practically remained constant throughout the whole event which was characterized by lively and sophisticated discussions. The participants, the majority of them engineers involved in industrial management, showed great enthusiasm for the programme dealing with diverse aspects of maintenance organization and training. The lectures given by local experts generated genuine interest amongst the audience and the excellent reports, supported by graphs and slides, as well as the very active participation in round table discussions by the UNIDO consultants, Messrs. Urra-Ruiz and Comba-Morayta, were highly appreciated. It is hoped that some of the abundant information on maintenance and repair activities offered during the working session will also actually be adapted and put to practical use in the industries of the country.

The counterpart organization had arranged for an effective public media campaign which already started with newspaper articles and television interviews before the official opening of the event. But, special broad coverage was given in the press during the Maintenance Week through reports of the sessions in addition to an exemplary emphasis of the importance and usefulness of properly administered maintenance for improved industrialisation and economy of Uruguay. One evening, an interview which lasted about 45 minutes was held in the television studio of the local Channel 5. Prof. Boccardi, four local experts, the two UNIDO consultants and myself took part in this live programme. The following day, the television crew of Channel 2 came to the CPU and devoted three hours to interview the same group again and later to record some of the round table discussions.

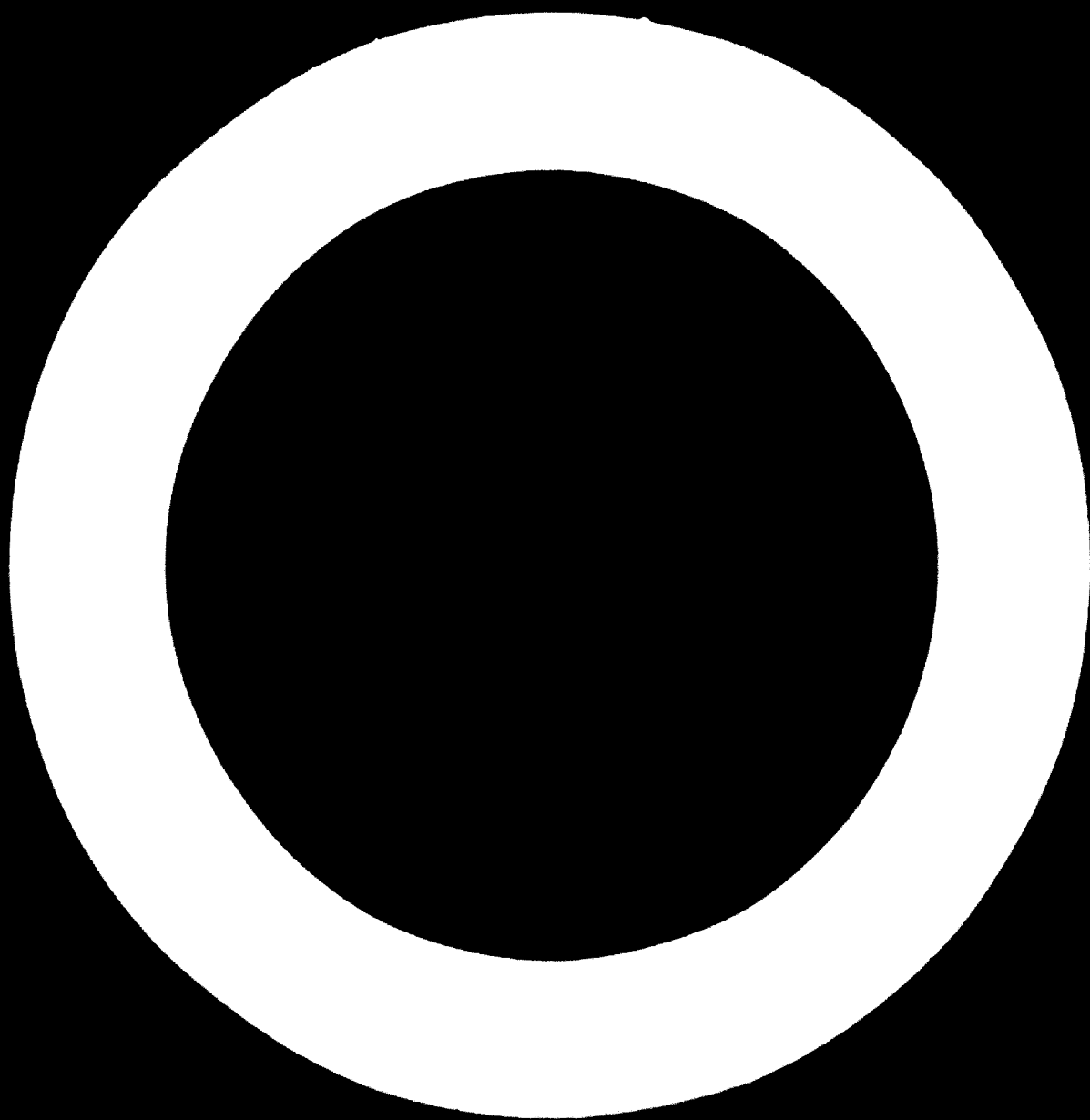


IV. OBSERVATIONS AND RECOMMENDATIONS

8. I would like, at this point, acknowledge the able organization of the memorable event and active co-operation of the participants who contributed their knowledge and experience in the discussions and interchange of opinion. It is hoped that the experiences gained during the Maintenance Week will result in a number of actions which will improve general policies on maintenance at both national and enterprise levels. I must, however, admit my disappointment over the absence of any seminar papers which should have been prepared and circulated in advance by the local experts as well as the UNIDO consultants. But, I was promised to receive, shortly, copies of these notes which were taken in the course of the sessions conducted by local engineers in form of documents, while our Spanish consultants will forward their papers from Madrid, upon completion.

Although the people who attended the symposium showed an enthusiastic spirit and the Maintenance Week, in general, was carried out successfully, it did not seem that the true objectives had been attained by the lectures of only theoretical value. These shortcomings were also related, in private meetings, to the officials who agreed with the observations made. I truly believe that UNIDO's new practical approach of dealing with specific major maintenance and repair problems facing selected industrial sectors will be a definite improvement in procedures for similar national events in the future. But based on the information gathered during the sessions of this event, various ways were pointed out, in which UNIDO could make a modest contribution to the efforts of local engineers by assisting to achieve any of the objectives outlined by them. In this connexion, I presented the following recommendations:

- (1) It is proposed that a National Maintenance Engineers Society be established in Uruguay to work closely together with similar international organizations for the purpose of providing diverse literature on maintenance management

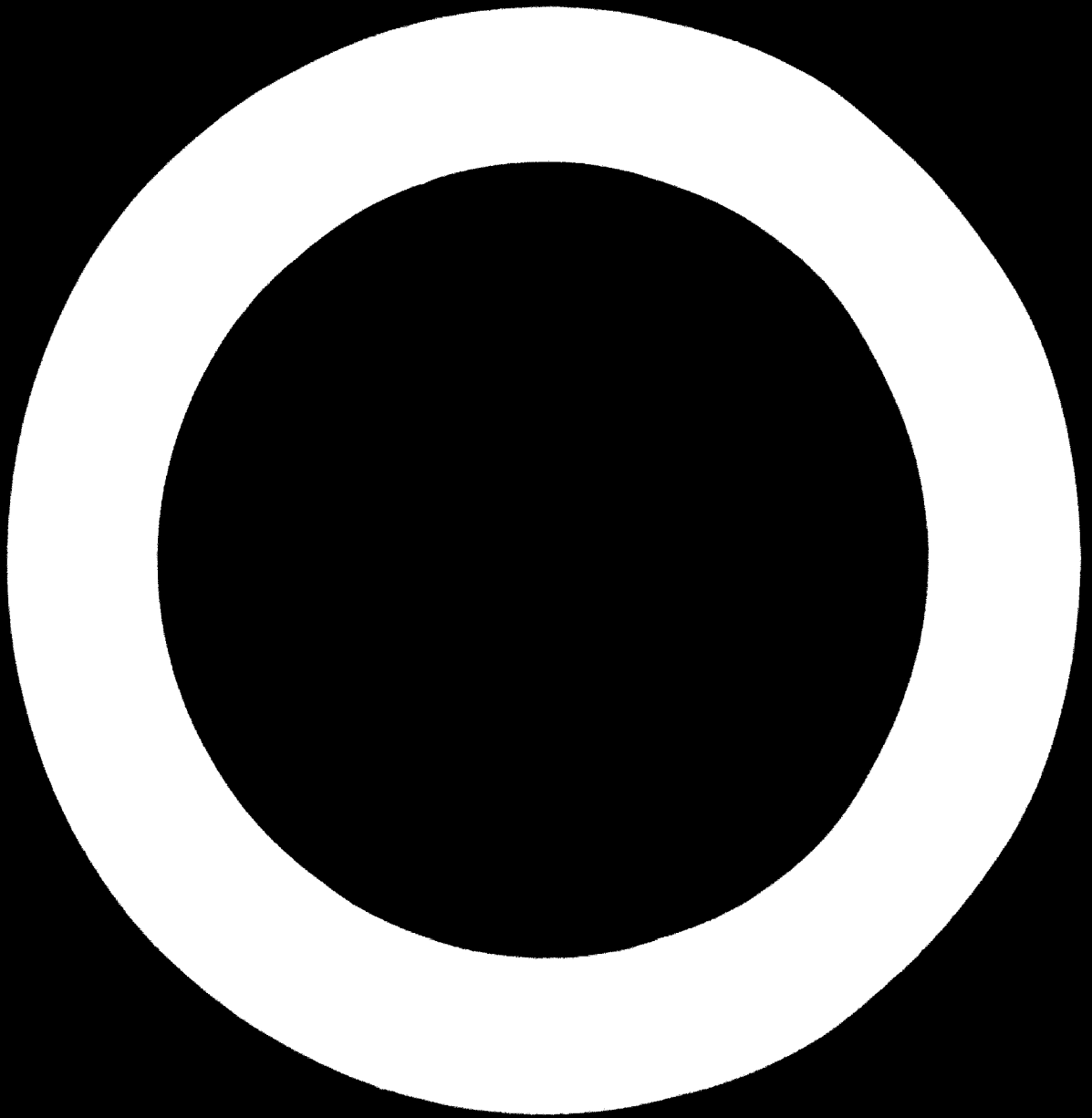


and engineering, as well as practical advice to local industries. Competent personnel should be in charge of this institute, capable of holding seminars, courses and discussions.

- (ii) Since the country programme for Uruguay had already been decided upon, it is suggested that the apparently needed project of a maintenance and repair pilot workshop, if rating a high priority, is being included at the annual review of the programme.
- (iii) When formally requested, voluntary contributions to the UNIDO General Trust Fund could be made available for the provision of mobile or stationary workshops, combined with SIS expert assignments of up to six months' duration.
- (iv) It is suggested to request, if needed, SIS assistance for specific industrial trouble shooting projects requiring expert services up to six months each.

We, at UNIDO, should be pleased to provide any of the technical assistance under the United Nations Development Programme to the industry of Uruguay in the field of maintenance and repair.

In closing this report I should like to acknowledge with particular gratitude the invaluable assistance and hospitality that had been extended by the Director General and all personnel of CPU, as well as the Resident Representative and his staff of the UNDP office.



ANNEX 1

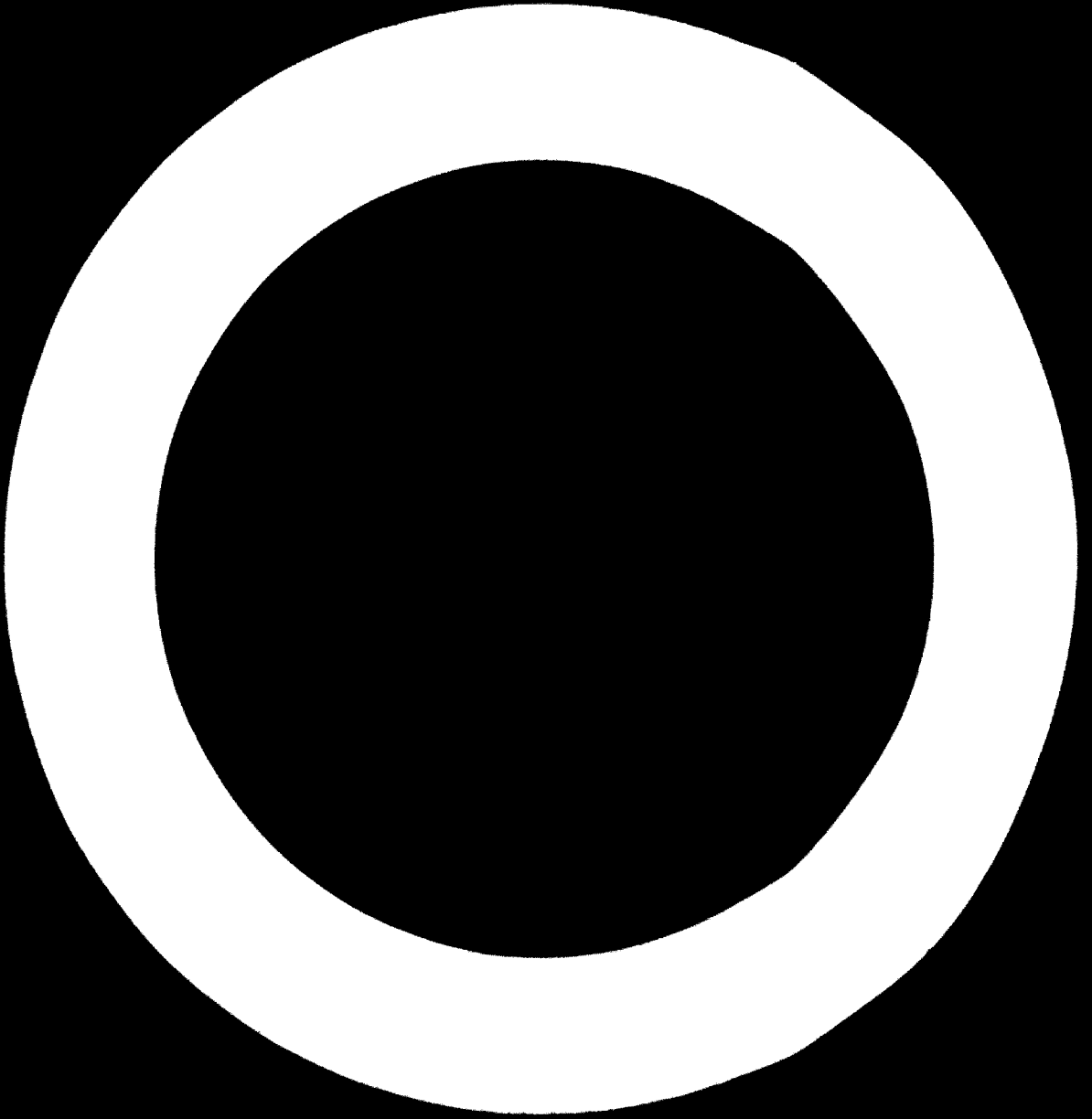
MAINTENANCE WEEKS - UNIDO'S NEW APPROACH

1. Suggested agreement on following procedures:

- (i) Selection of 2 - 3 industrial priority sectors by host country/counterpart.
- (ii) Local experts to make field study of a few factories in the selected industrial sectors.
- (iii) Preparation of reports which should be sent to UNIDO for information and possible comments.
- (iv) 2-3 international experts with extensive experience in the respective sectors will be assigned by UNIDO to carry out factory visits for the initial period of four days. They will be expected to:
 - analyse and evaluate the present methods and systems in maintenance and repair of machinery and equipment;
 - survey the implementation of maintenance schedules;
 - discuss any specific maintenance problems with the management,
 - offer on-the-spot advice, when necessary.
- (v) Panel discussions leading to recommendations of how to resolve specific problems, during the last three days of the Maintenance Week.

2. Expected local counterpart contributions:

- a) Public media campaign (radio, television, press);
- b) Adequate space for the meeting;
- c) Local transportation;
- d) Simultaneous translation service;
- e) Payment, if necessary, for the preparation and printing of papers;
- f) Miscellaneous expenses (secretarial and other conference services);
- g) Local travel and subsistence for participants coming from other regions (could possibly be borne by their employers).



2 de mayo de 1973

ANEXO II

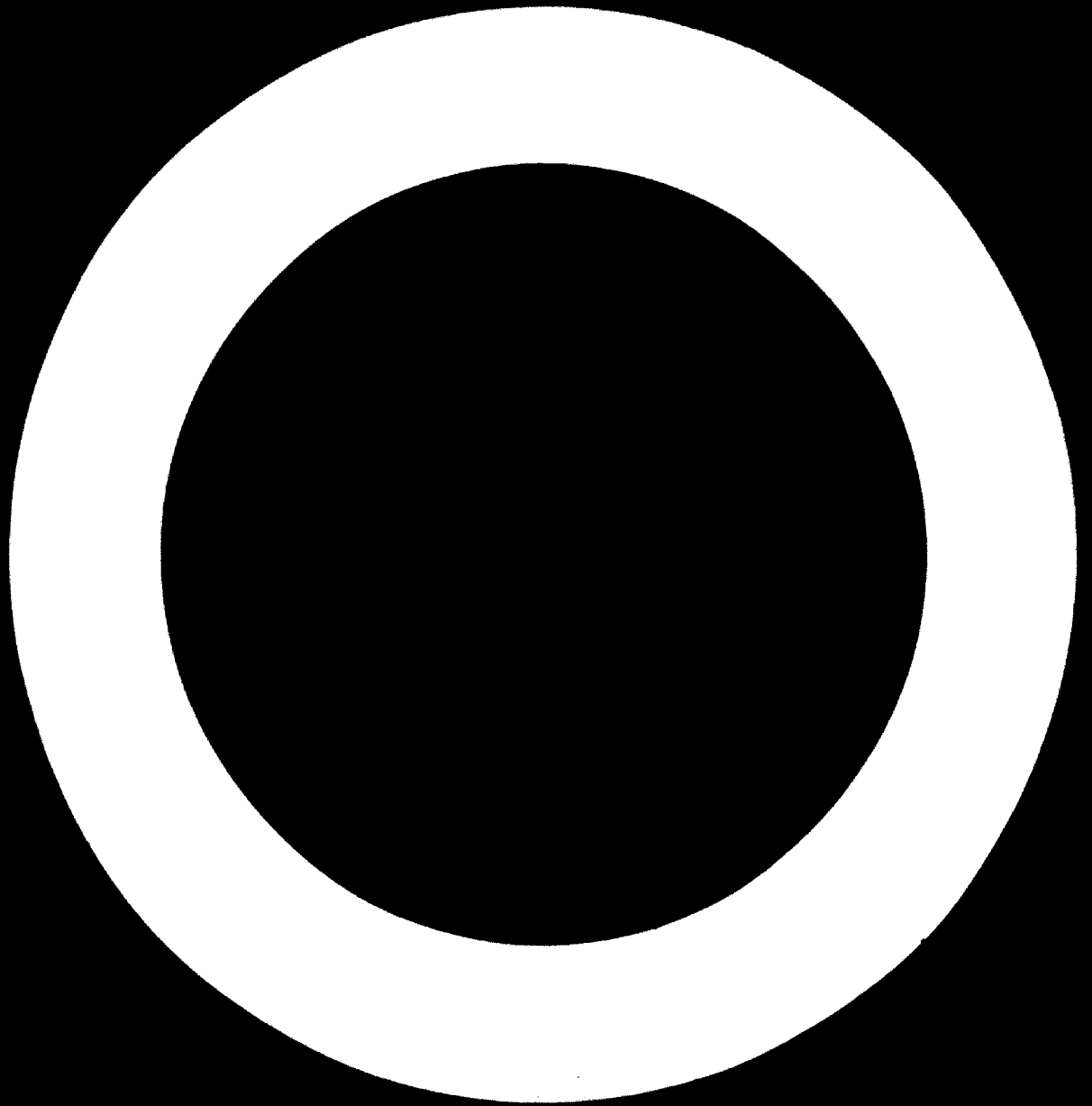
SEMANA SOBRE MANTENIMIENTO INDUSTRIAL

En el auspicio de la Organización de las Naciones Unidas para el Desarrollo Industrial (ONUDI) y la colaboración del Gobierno de Uruguay, se realizará entre los días 27 y 28 de mayo una Semana sobre Mantenimiento Industrial la cual tendrá por sede el Centro de Productividad del Uruguay.

En la preparación de la misma viene actuando un Grupo de Trabajo integrado por delegados del Ministerio de Industria y Comercio y el Centro de Productividad del Uruguay, ex-bucarios uruguayos de la ONUDI y técnicos en la materia, y representantes de la Oficina del Programa de las Naciones Unidas para el Desarrollo en el Ur.

Estas jornadas consistirán en una serie de exposiciones y mesas redondas a cargo de expertos de la ONUDI y locales, quienes se referirán a los problemas generales de la administración y organización del Mantenimiento Industrial, las técnicas de control, y la capacitación; y en forma más particular, tratarán también las posibilidades nacionales al respecto y el panorama del Mantenimiento en las ramas siguientes: maquinaria agrícola, de ingeniería civil, automotriz, industrias frigorífica y de envasado de alimentos, textil y del cuero. Se llevarán a cabo, además, visitas a la refinería de ANCAP y establecimientos de las industrias automotriz y tabacalera.

La Semana sobre Mantenimiento Industrial contará con la presencia de autoridades y técnicos de los Ministerios de Industria y Comercio, Obras Públicas, Ganadería y Agricultura, de Entes Autónomos, de la Universidad, y de asociaciones y centros representativos de la actividad privada del país.

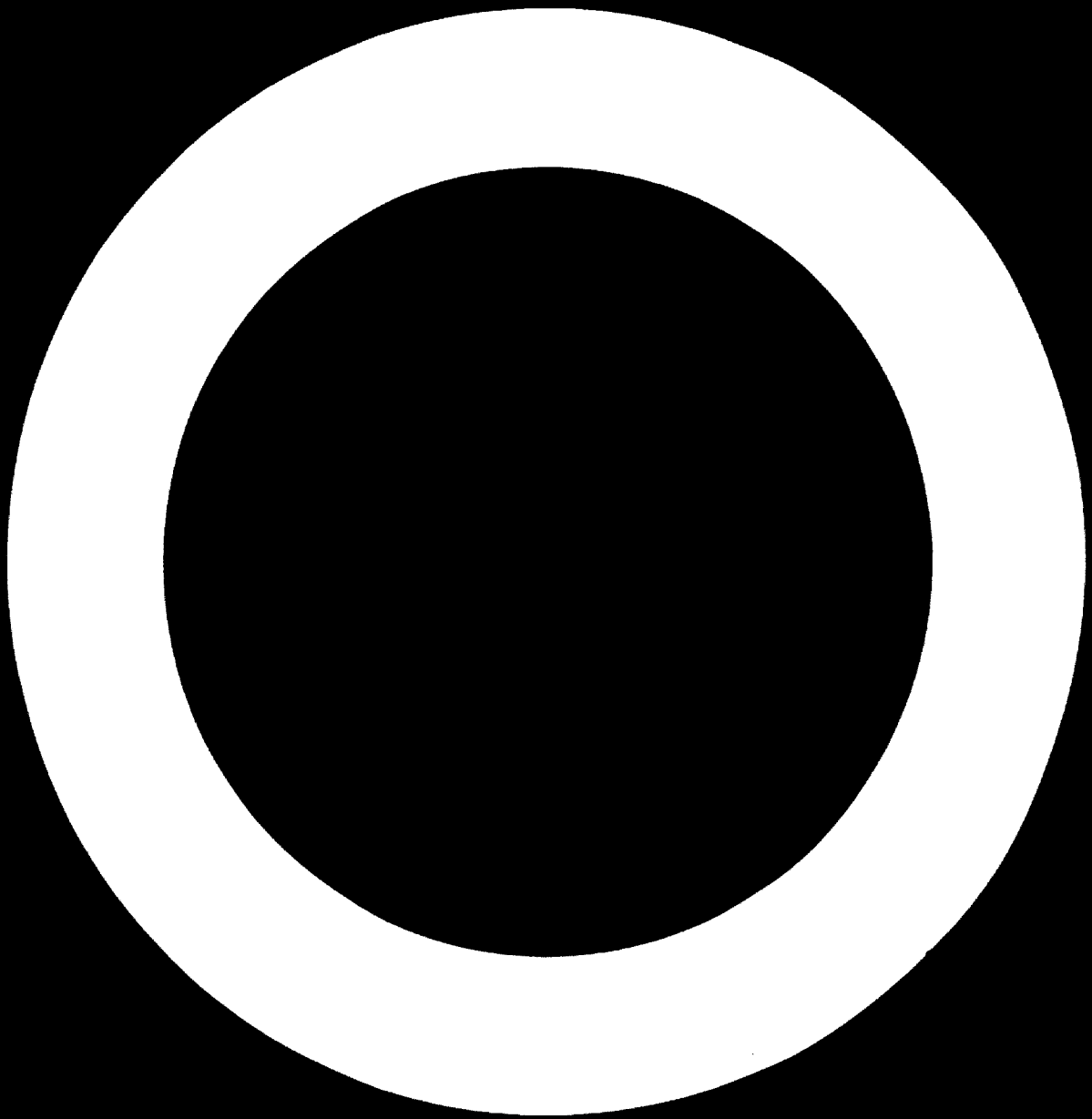


Naciones Unidas - Centro de Productividad del Uruguay

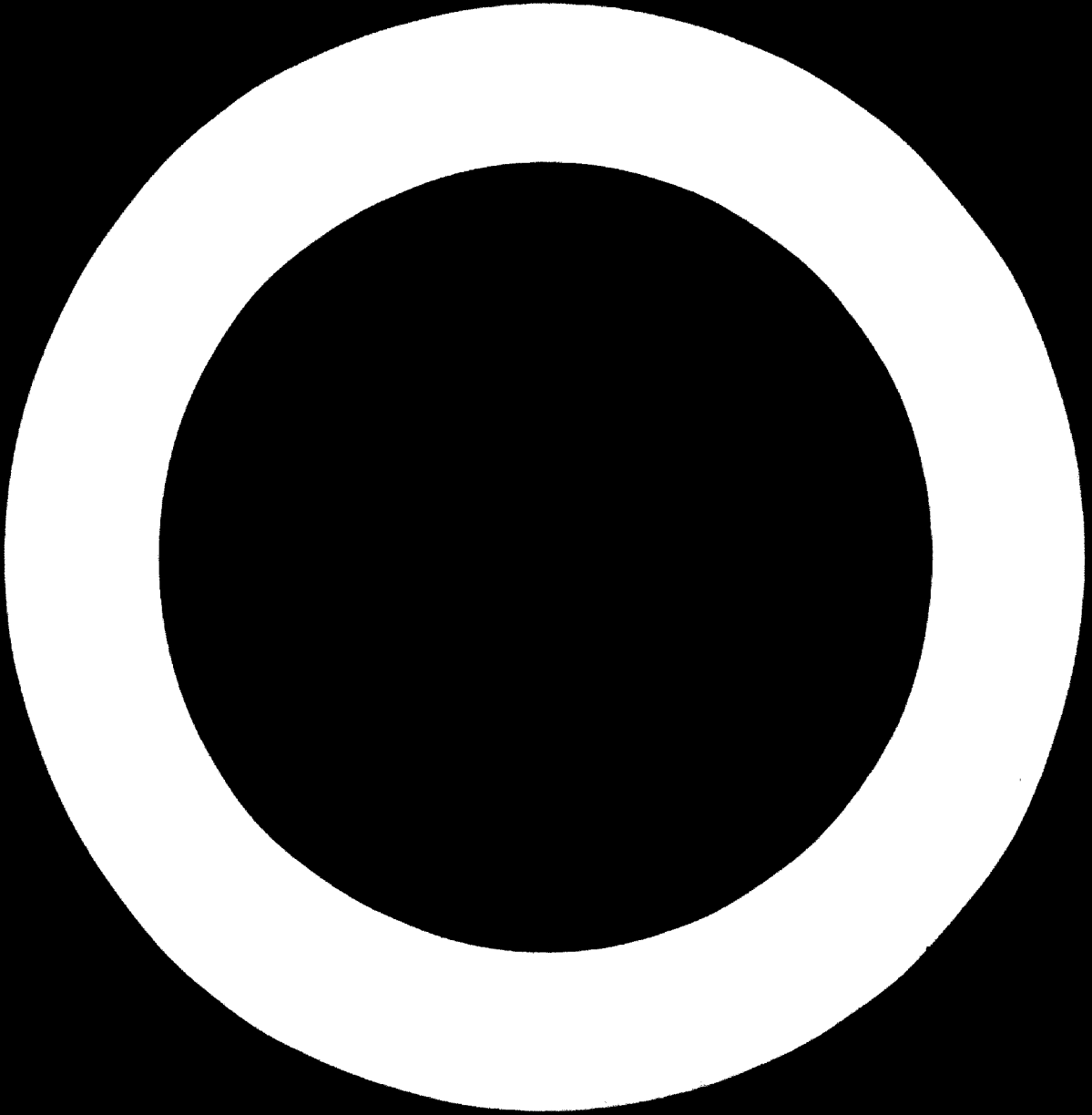
PROGRAMA

21 al 26 de mayo de 1973

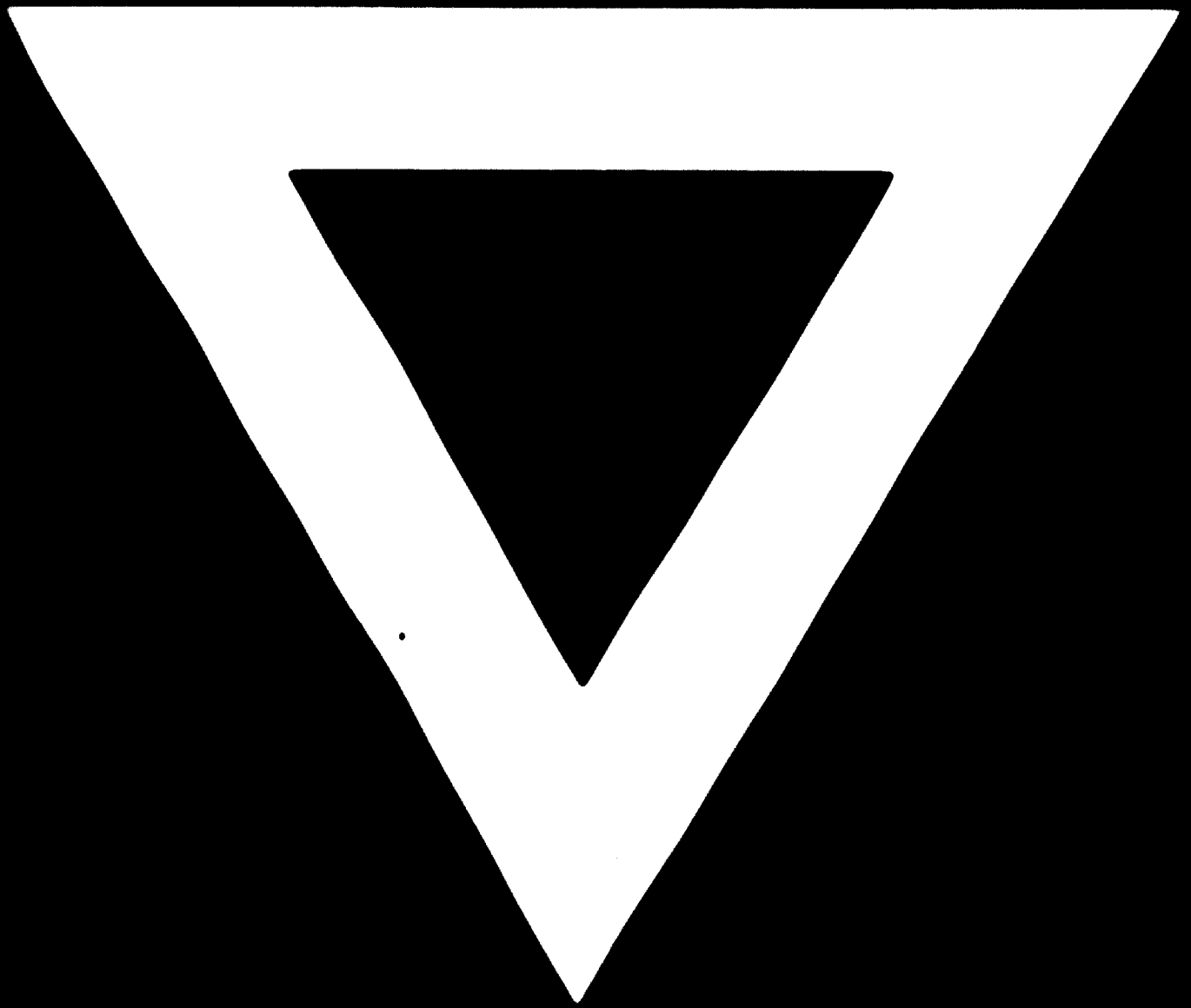
<u>Me y Hora</u>	<u>Local</u>	<u>Tema</u>	<u>Expositor</u>
Mañanas 21/5 de 10 a 12	CFU	Apertura y Presentación del Programa	Director General del C.P.U. - Sr. A. BOCCARDI Representante Residente de las Naciones Unidas - Sr. H. NAVAJAS-MOGRO Represent. de ONUDI - C. JORPELL
de 15 a 16 de 16 a 17:45	CFU	Políticas Nacionales de Mantenimiento Mesa Redonda	Exerto de ONUDI Dr. Ing. Masabio YAMAMOTO
Miércoles 22/5 de 9 a 10 de 10 a 12	CFU	Administración y Organización de Mantenimiento Mesa Redonda	Ing. Enrique CABRERA Administración Nacional de Puertos
de 11 a 15	CFU	Repuestos en el Problema de Mantenimiento	Ing. Marcoquino LIEBERMAN - A.E.C.A.P. Ing. Luis GIRIBONE - Metzger y Sena
de 16 a 17		Mesa Redonda	
de 17:30 a 18:30	BULL	Técnicas Modernas de Control en Mantenimiento	Ing. Horacio MADRINO Técnico de EULL



<u>Fecha y Hora</u>	<u>Local</u>	<u>Tema</u>	<u>Expositor</u>
de 18:30 a 19:30	BULL	Mesa Redonda y posteriormente se hará una demostración práctica	
Miér. 23/5 de 9 a 10	CFU	Mantenimiento en Planta	Experto de OMUDI Sr. Ing. Guillermo COBEA MORAYTA
de 10 a 12		Mesa Redonda	
a las 15	CFU	Importancia de la Capacitación en Mantenimiento	Experto de OMUDI Dr. Ing. Eusebio URRUTIA
a las 15:40	CFU	Posibilidades Nacionales	Sr. Washington SANCIA - U.T.U.
a las 16:20	CFU	Formación y Adiestramiento en Mantenimiento	Arq. Camilo SARAVIA A.N.C.A.P.
de 17 a 17:45		Mesa Redonda	
Juev. 24/5 de 9 a 10	CFU	Mantenimiento de Maquinaria Agrícola	Carlos Puchala (Basso) Técnico de John Deere
		Mantenimiento en Maquinaria de Ingeniería Civil	J. Fenton G.E.M.C.C.S.A.
Simultáneas de 10 a 12		Mantenimiento en Maquinaria Automotriz	Ing. Nicolás Zunini Julio C. Lestido S.A.
		Mesa Redonda	



Fecha y Hora	Lugar	Evento	Asistentes
de 15 a 16	CVU	Reunión en la Industria Perifoneica y de Desarrollo de Alimentos	Ing. Raúl Prando Frig. Carrasco
Sesión mañana		Reunión en la Industria Textil	Sr. Adolfo Parvantes La Industrial de Juan Lomas Ing. Andrés Torres Curtiembre Suizo- Brazo
de 16 a 17:05		Hora Italiana	
de 8 a 12		Visita a la Refinería de I.I.C.A.P. Departamento de Mantenimiento Industria de Petróleo	
de 14 a 17		Visita a Julio C. Lantido S.A. Industria Automotriz	
de 17 a 19		Visita a Monte Pas Industria Tabacalera	
Sesión 26/ de 10 a 12	CVU	Sesión de clausura	



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