

People and things

backgrounds from synchrotron radiation and degraded beam particles. After careful study, these backgrounds have been minimized by judiciously placed masks.

Looking further ahead, other improvement projects should push the luminosity to twice its present multi-bunch level. The first is to modify the injection system to provide more reliable injection. The second is to install rare-earth/cobalt permanent quadrupole magnets close to the interaction points to squeeze the colliding beams closer together. These projects should be completed in time for the arrival of the CLEO II detector (see April issue, page 106).

Change at the top

Boyce McDaniel stepped down as Director of Cornell's Floyd R. Newman Laboratory of Nuclear Studies on 1 July. His 18 year period as Director included both the 12 GeV electron synchrotron and the CESR electron-positron collider. While on leave from Cornell in 1972, he served as head of the Accelerator Division at Fermilab during the commissioning of the (then) 400 GeV accelerator. McDaniel is a member of ICFA (International Committee for Future Accelerators), and is chairman of the Board of Overseers for the US Superconducting Super Collider (SSC) project. He continues as Cornell Professor of Physics.

New Cornell director is physicist Karl Berkelman.

Future of CERN

Under the chairmanship of Carlo Rubbia, a 'Working Group on the Scientific and Technological Long-term Future of CERN' has been set up 'to explore various options for the long-term future of CERN, taking into account existing facilities (infrastructures), emphasizing respective pros and cons; in working out these options, realistic boundary conditions concerning financial and manpower limitations should be taken into account.' Members of the Group are Giorgio Brianti (CERN), Pierre Darriulat (CERN), Gösta Ekspong (Stockholm), Carlo Rubbia (Chairman), Abdus Salam (London and Trieste), Samuel C. Ting (MIT), Simon van der Meer (CERN), and Gus Voss (DESY). ECFA Chairman J. Sacton will attend the meetings of the Group as an observer. The first meeting took place on 5 June.



Carlo Rubbia – looking at the long-term future of CERN.

Heavy neutrino?

A big question mark still looms over the mass of the neutrino. Is this particle truly massless, moving at the speed of light, or has it some small mass? For some time, bench-top experiments in Moscow and elsewhere studying beta decay have been suggesting that the electron-type neutrino weighs somewhere in the region from 20 to 45 eV.

One sensitive test for neutrino mass effects is the shape of the electron emission spectrum measured in beta decay. The detailed shape of the spectrum at the high energy end is governed by the mass of the electron-type neutrino. In a recently published result, John Simpson of the University of Guelph, Ontario, Canada, reports instead a distortion at the low energy end of the beta decay spectrum of tritium. Simpson, who has been studying tritium decay for four years, interprets this as being due to a heavy (17.1 keV) neutrino.

Such a mass, although very light compared to other particles (the lightweight electron is 511 keV), is unparalleled in neutrino circles, and will be sure to set the theorists thinking.

Constant Tièche

Constant Tièche, retired head of CERN Finance and architect of much of CERN's financial administration, died on 27 May.

Mervyn Hine retires

Mervyn Hine, one of CERN's founder members, retired at the end of May. He came to the Laboratory, together with the late John Adams, in 1953 and played a leading role in the design, construction and commissioning of the 28 GeV Proton Synchrotron.

On completion of the machine, he began a ten-year period of major responsibility in the CERN hierarchy working with Directors General Adams, Weisskopf, Gregory and Jentschke. Viki Weisskopf, in particular, paid tribute to Hine as being the powerhouse behind the work of the CERN management at that time.

He has contributed to accelerator development, to project presentations, to establishing financial procedures and to promoting developments in the Laboratory infrastructure (like the use of big computers, networks, high speed data links and office automation). His thinking and his forward vision have helped CERN to be ready when 'the future' arrived.

Mervyn Hine is one of the pioneers who created CERN and who helped forge its particular character from which the Laboratory is now reaping the benefit.

Mervyn Hine

ATLAS at Argonne

ATLAS, short for Argonne Tandem Linear Accelerator System and the world's first superconducting heavy ion accelerator, was dedicated at the US Argonne National Laboratory on 3 June.

The new linac boosts the energies of particles emerging from a tandem Van de Graaff and provides a useful extension to the range of nuclear physics studies at Argonne. Similar machines are under construction at Florida State and Kansas State Universities.

French Academy of Sciences

Detector specialist Georges Charpak of CERN was recently elected a member of the prestigious French Academy of Sciences.



Georges Charpak





The nuclear physics section of NIKHEF, the Netherlands' National Institute for Nuclear and High-Energy Physics, has openings in the PIMU group for

TWO EXPERIMENTAL PHYSICISTS

at the postdoc level, who are interested to participate in the research of the group on pion absorption in nuclei and on pion charge exchange in pionic atoms. The experiments are performed at the pion/muon facility in Amsterdam and in some cases abroad.

Several years of research experience in nuclear or (intermediate energy) particle physics are required, while a strong background in particle detection techniques and/or data processing (hardware/software) is desirable.

The duration of one contract is two years. For the other one it is one year with a possibility of one year prolongation. The appointment will be with the Foundation for Fundamental Research on Matter (FOM).

Information can be obtained from Dr. R. van Dantzig, tel. (020) 5920120 or 5922008.

Candidates are invited to apply within two weeks after appearance of this advertisement, while enclosing a curriculum vitae, also mentioning performed research and names of referees, to

Prof. Dr. G. van Middelkoop,
Scientific Director of NIKHEF,
section K, Postbox 41882,
1009 DB Amsterdam, Netherlands.



European Organization for Nuclear Research
European Laboratory for Particle Physics
Organisation Européenne pour la Recherche Nucléaire
Laboratoire Européen pour la Physique des Particules

The Experimental Physics Division intends to make an appointment to the position of a

PHYSICIST

in experimental particle physics research. Candidates are expected to have an excellent record of successful work in this field, and to have the ability to provide leadership. The appointment will be made for a fixed term, and may subsequently become permanent.

The holder will play an important role in all aspects of the conception and design of experiments, and of the construction and operation of detectors, and the development of on-line and off-line software and the analysis of data.

Please send letters of application, including the names of three referees, list of publications, a brief curriculum vitae and a brief description of research interests, to the

**Leader of the Experimental Physics
Division,
CERN, 1211 Geneva 23, Switzerland
quoting reference EP/RE, before 5.8.85.**

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Duties: Reporting to the Laboratory Director, the Deputy Director for General Sciences provides overall direction for Laboratory divisions in high energy physics, nuclear physics, accelerator physics, and fusion research. Major responsibilities include management oversight of these divisions, coordination of interdivisional programs and activities, establishment and implementation of goals consistent with the Laboratory's mission, interaction with policy and advisory committees to ensure the highest quality of scientific achievement, and management liaison with the University of California, the U.S. Department of Energy, and other external agencies.

Requirements: A distinguished record of scientific achievement and proven leadership in managing interdisciplinary programs in fields such as high energy physics, nuclear physics, accelerator physics, or fusion research. Proven success in interacting with academic institutions, scientific laboratories, private industry, and the federal government (especially the U.S. Department of Energy). Must have a Ph.D. in the physical sciences or equivalent experience. Requires strong management skills in areas of decision-making, problem-solving, interpersonal communications, staffing, funding, and facilities planning and utilization. "Position is subject to the financial disclosure requirements of the California Political Reform Act of 1974."

Please submit two copies of resume including salary history and names and addresses of references to:

**Chairman, Search Committee
LAWRENCE BERKELEY LABORATORY,
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Building 90, Room 1012, Berkeley, CA 94720.**

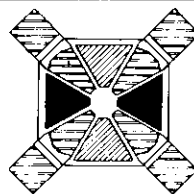
Refer to Job #B/3425.

Resumes must be received in the Employment Office by September 1, 1985, 5:00 p.m.

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RESEARCH SCIENTIST POSITION IN EXPERIMENTAL NUCLEAR PHYSICS AT INDIANA UNIVERSITY

The Department of Physics at Indiana University invites applications for a project tenure-track position in experimental nuclear physics, to start in Fall, 1985, or early 1986, at the Indiana University Cyclotron Facility (IUCF). IUCF is a national user facility which provides intermediate-energy light-ion beams affording excellent opportunities for forefront experimental research, which is supported and complemented by the Nuclear Theory Center located in the cyclotron laboratory. Upon completion of the electron cooled proton storage ring now under construction, beams of unprecedented quality will be available for precision nuclear research and the application of novel experimental techniques. The position of Research Scientist comprises a 3-rank system at Indiana which is equivalent in structure and promotion criteria (with the exception of teaching duties) to the regular faculty ranks. Although opportunity for part-time teaching exists, the primary emphasis is upon research. Project tenure, when conferred, is with respect to the IUCF contract. Applicants must have a Ph.D., at least one year of post-doctoral experience, and should have demonstrated outstanding potential to lead a vigorous independent research program. Appointment at the Assistant Scientist level is anticipated, but appointment at higher rank will be considered for appropriate candidates. Salary will be commensurate with qualifications, experience, and rank. Applicants should submit a curriculum vitae, publication list, copies of recent publications, and arrange for three letters of recommendation to be sent to:

**Dr. W.W. Jacobs
Indiana University Cyclotron Facility
2401 Milo B. Sampson Lane
Bloomington, Indiana, USA 47405**

as soon as possible, before the closing date of September 15, 1985.

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Department of Nuclear Physics

Appointment of Research Officer

The department will shortly appoint a Research Officer in Particle Physics. Whilst mainly a research appointment, the appointee will be required to undertake seventy-two hours a year of laboratory demonstrating and he/she will be encouraged to give graduate lectures. The research programme of the experimental particle physics group includes the Soudan II search for proton decay, a major contribution to the DELPHI detector for LEP (CERN), preparation for an experiment at HERA (DESY), and development of an indium detector for solar neutrinos.

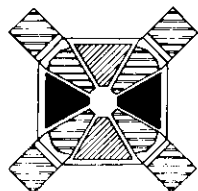
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Applications with the names and addresses of two referees should be sent to

**Mr. M.S. Gautrey,
Department of Nuclear Physics,
Keble Road, Oxford**

from whom further particulars may be obtained.

The closing date is September 5 1985.



DIRECTOR OF THE INDIANA UNIVERSITY CYCLOTRON FACILITY

Applications are invited for the directorship of the Indiana University Cyclotron Facility (IUCF). IUCF is a major and growing national users' facility for intermediate-energy nuclear science with light ion beams. We seek a distinguished nuclear scientist to provide scientific leadership for the laboratory and its program. The director will serve a five-year term starting in the summer of 1986 and will receive a tenured full professorship in the Department of Physics. The five-year term of the directorship will see the start of experimental work with a new electron-cooling storage ring and the development of plans for the future growth of the facility. Salary will be commensurate with experience and qualifications. Applications with a complete resume, including the names of four references, and nominations should be sent as soon as possible, but not later than Nov. 1, 1985, to

**Professor S. E. Vigdor,
Chairman, Search and Screen Committee,
Research and Graduate Development
Bryan Hall 104, Indiana University,
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Indiana University is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minority candidates.

EXPERIMENTAL HEAVY-ION NUCLEAR PHYSICS RESEARCH POSITION AT LAWRENCE BERKELEY LABORATORY

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Initial responsibilities involve the design and testing of the DLS electronic detection system, particularly in the drift chambers used for tracking leptons. After the construction phase, emphasis will shift to the experimental study of the dilepton signal in p-nucleus and nucleus-nucleus collisions at the Bevalac, including all aspects of data-taking and data analysis.

The successful candidate must have a PhD in nuclear or particle physics as well as research experience in this area as evidenced by a record of recent publications, with extensive background using detectors, computers and electronic equipment.

Applicants are requested to submit a curriculum vitae, list of publications and the names of at least three referees to:

**Dr. Janis M. Dairiki, c/o Employment Office,
Mail Stop 90-1042,
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as early as possible.
Refer to Job # A/3407.**

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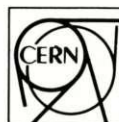


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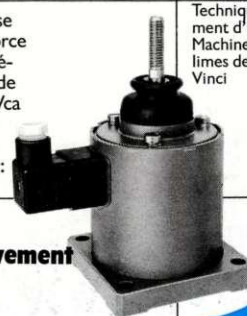
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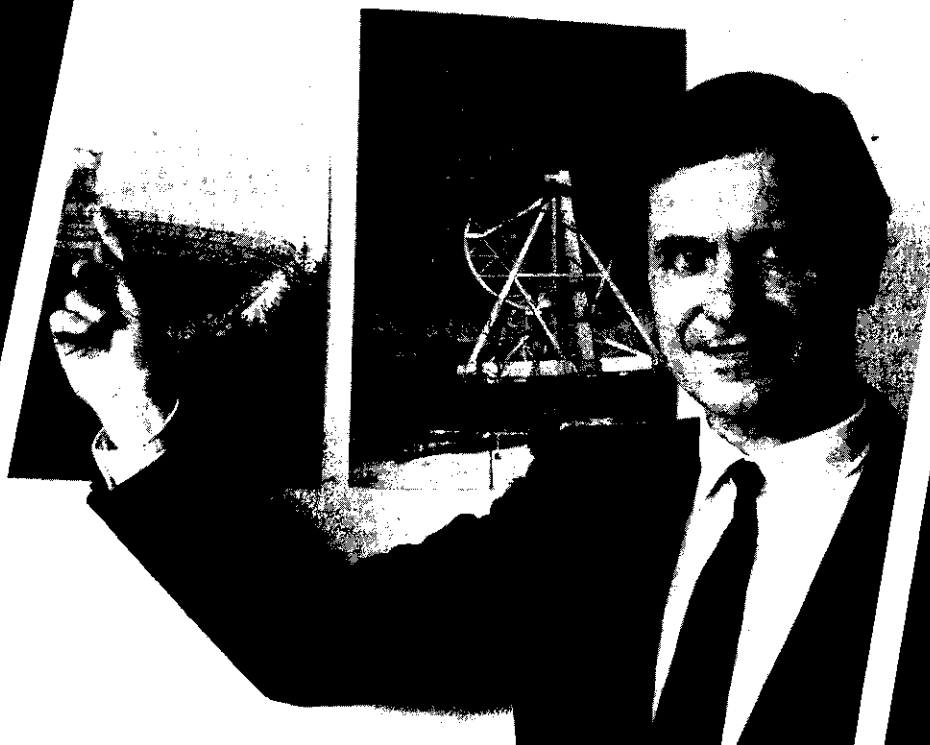


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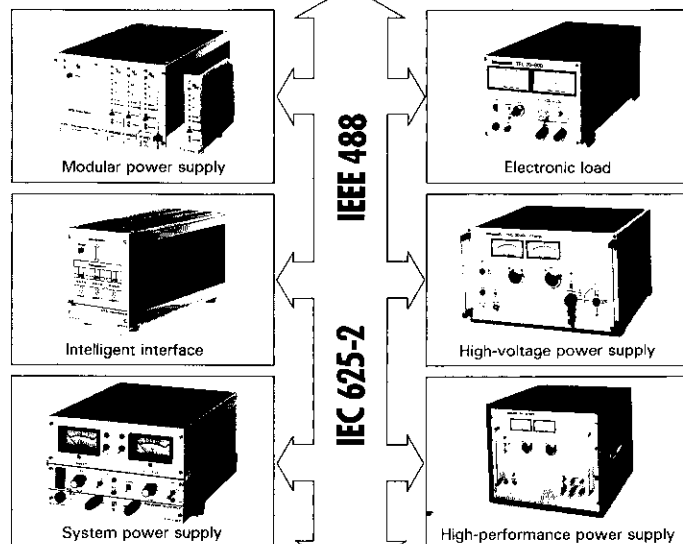
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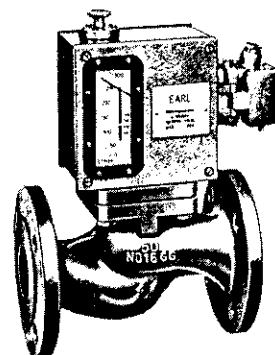
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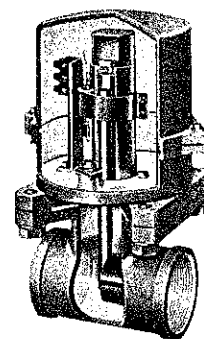
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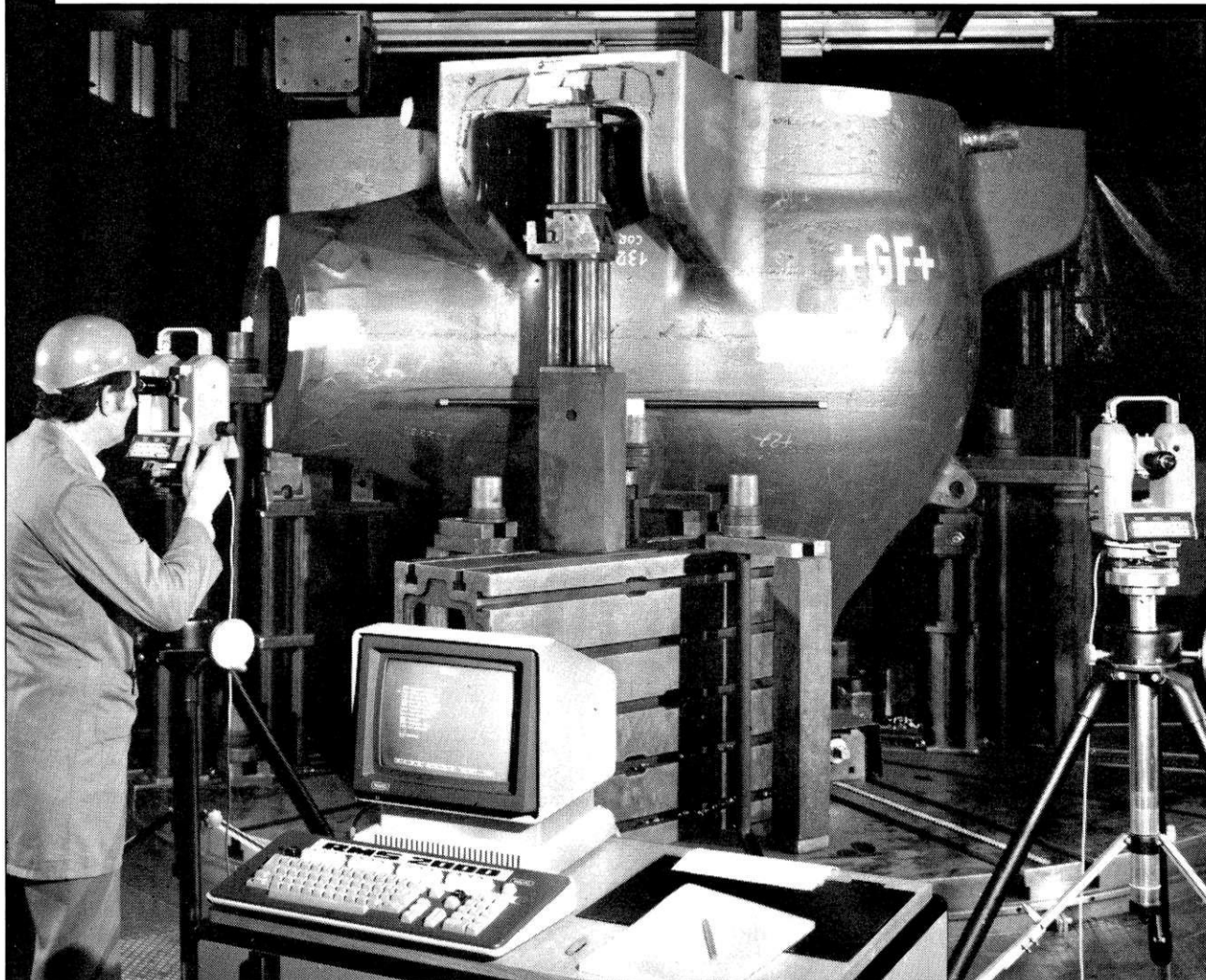
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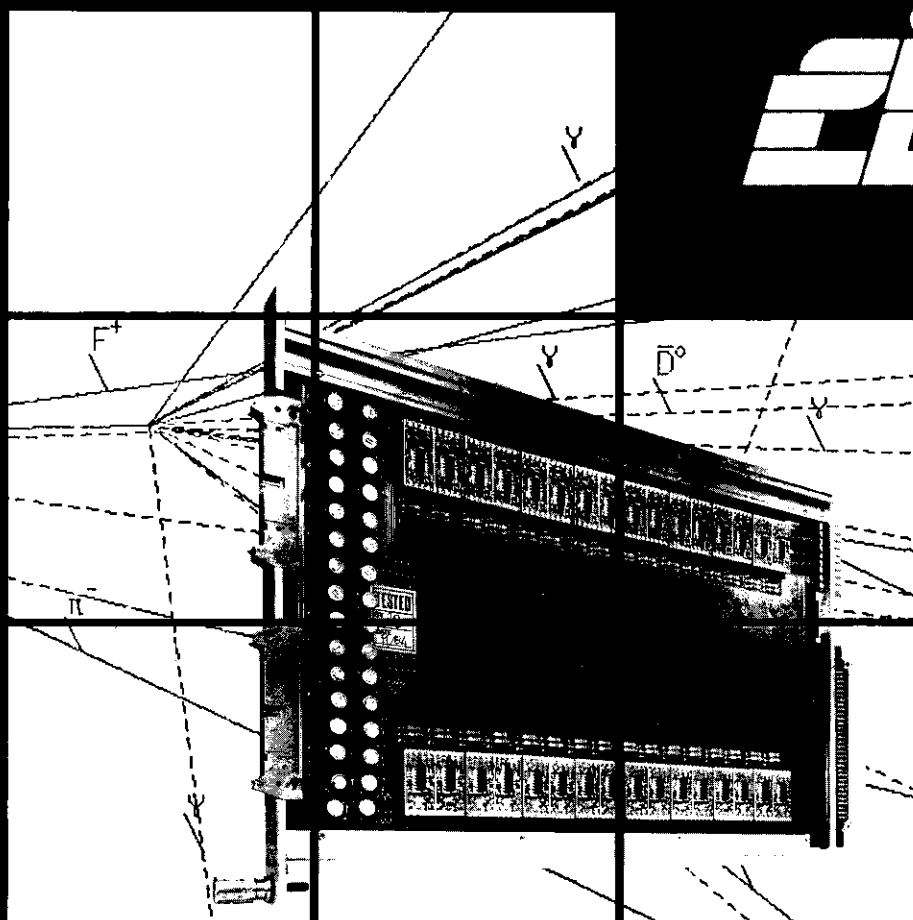
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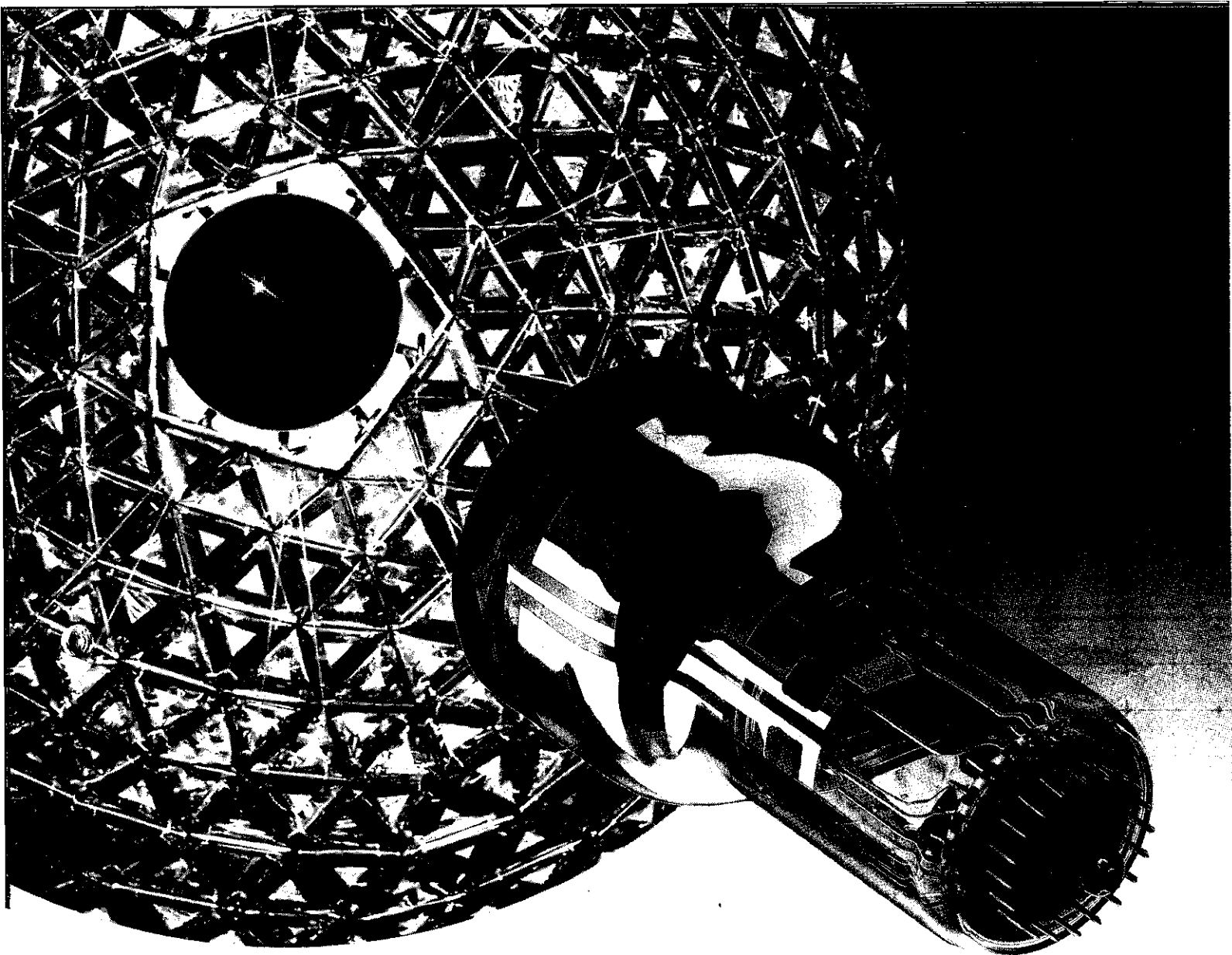
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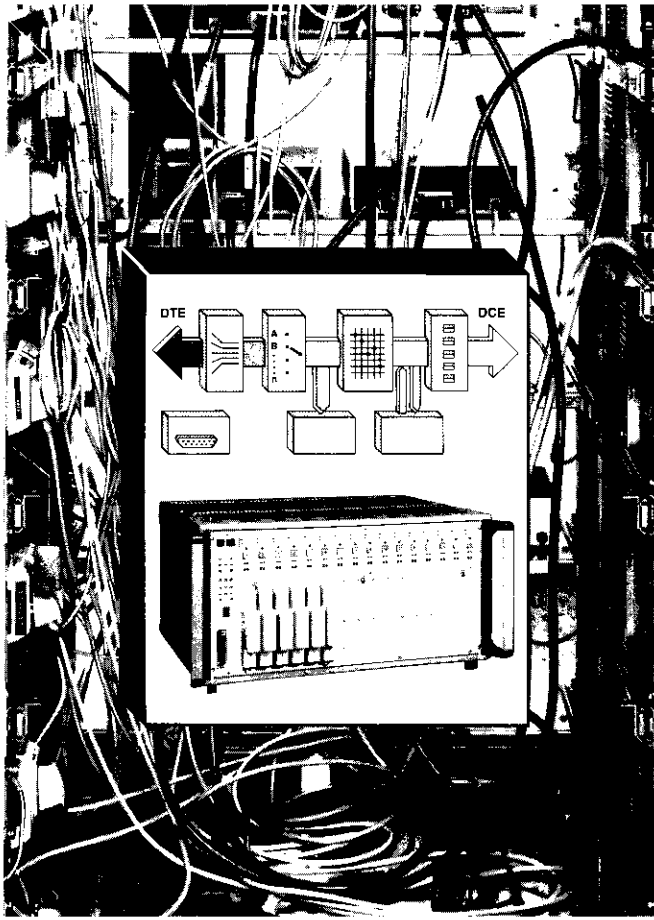
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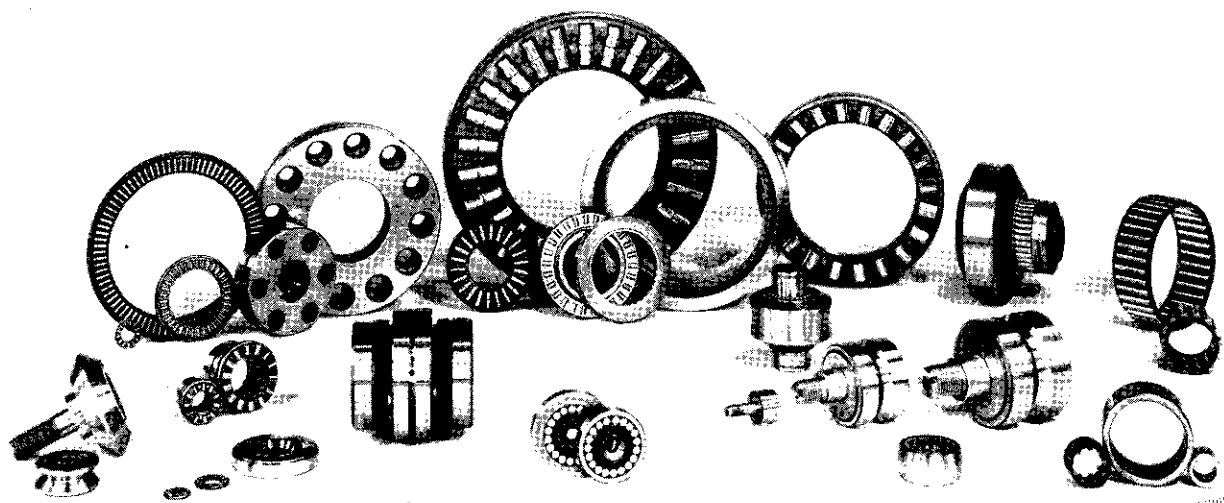
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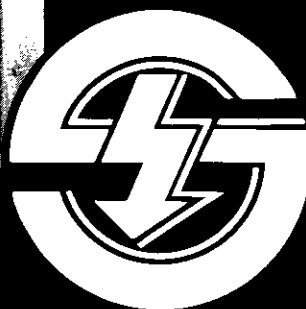
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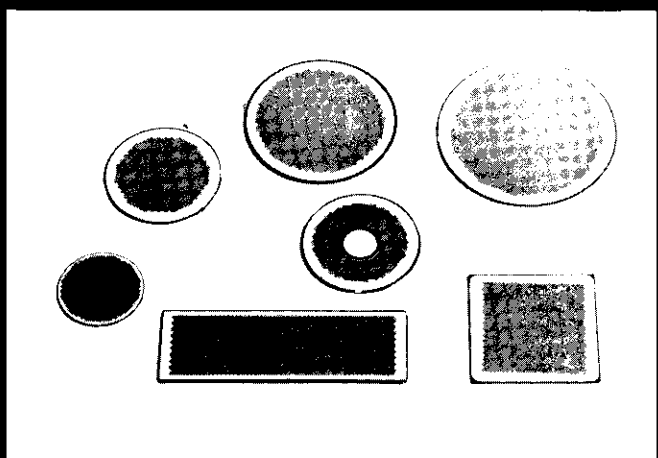
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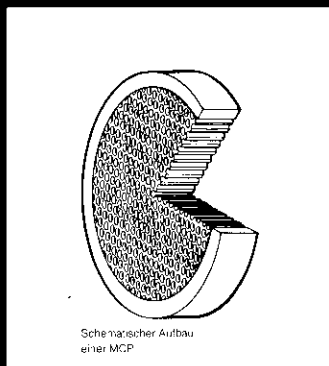
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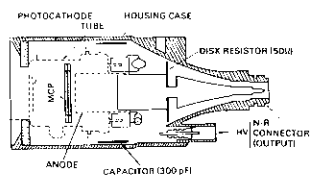


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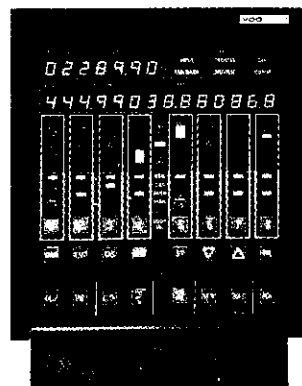
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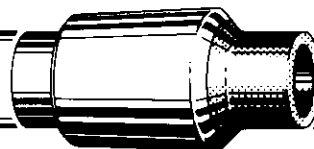
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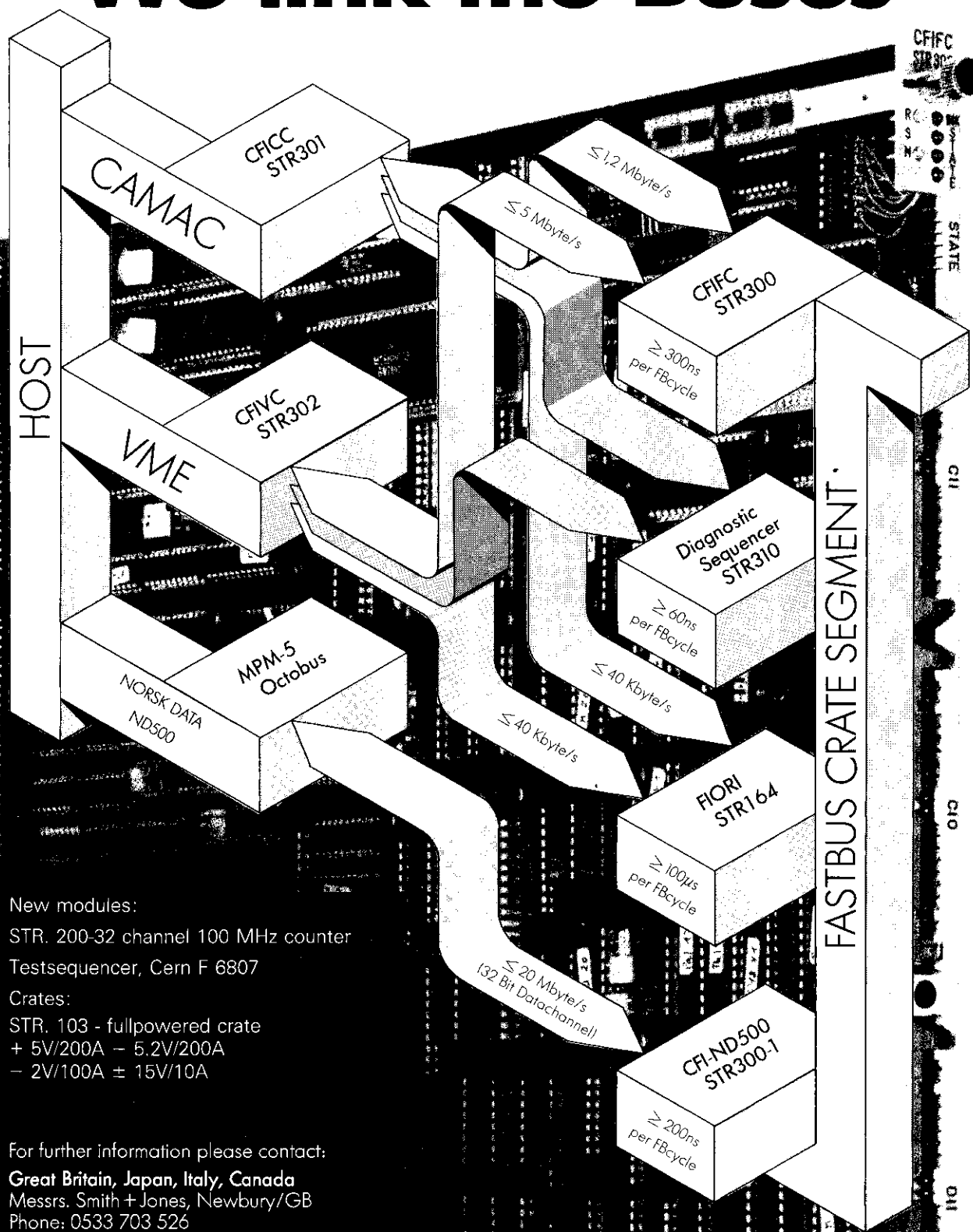
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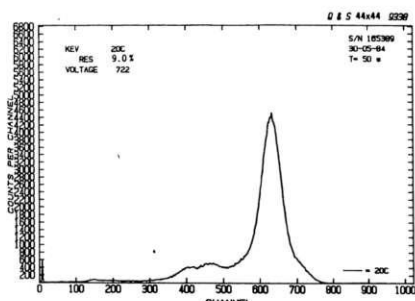
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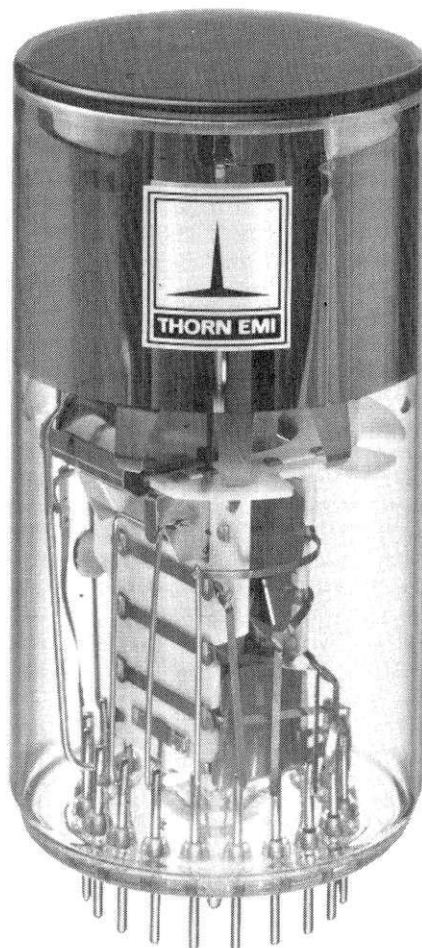
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