

The studies are still concentrated on what happens to the injected electrons after they have formed rings and during the first few turns at the start of compression to give smaller rings. Improved instrumentation is giving good knowledge of the ring behaviour but it is still difficult to understand what is happening. When the circulating intensity is increased, the momentum spread goes up seemingly due to some instability and at about 10^{13} electron levels the ring quality is poor. Only when these phenomena are understood and mastered will attention move to compression, injection of ions and acceleration of the loaded rings.

At Dubna, where alpha particles were accelerated in electron rings about two years ago, no more spectacular results have been announced. They are using the same compressor but with a new coil configuration and an electrostatic septum for injection. A new injector designed to provide 2 kA pulses of 20 ns duration is being tested. It has provided 1.5 kA pulses of 20 ns at 3.5 MeV.

A new compressor chamber is being built and an acceleration section of the r.f. type (rather than the ring expansion type used up to now) is ready for installation. Work on a superconducting r.f. section continues.

On the theoretical side, calculations of longitudinal stability indicate that the holding power of the rings is lower than the initial calculations suggested. The holding power is proportional to the peak compressing field and therefore if it proves possible to compress in higher fields the holding power would become healthy again. For the moment, however, the multi-GeV proton acceleration ideas are not discussed and all the emphasis is on heavy ions. At Dubna, for example, the very successful nuclear physics group of G.N. Flerov is very keen to

accelerate xenon ions to high energies in an attempt to produce the comparatively stable superheavy elements predicted to exist around element 114.

UPPSALA Conference

The Fifth International Conference on High Energy Physics and Nuclear Structure will be held at Uppsala, Sweden from 18-22 June 1973. It is sponsored by IUPAP with the Gustav Werner Institute as the main organizer.

This series of conferences started at CERN in 1963 with the intention of bringing the diverging fields of high energy and nuclear physics together. Since then there have been meetings at Rehovot (1967), Columbia (1969) and Dubna (1971). The conferences are meeting grounds where particle physicists and nuclear physicists discuss the use of elementary particles in the study of the nucleus and also the nucleus as a tool in analyzing high energy phenomena.

The Uppsala Conference will change the approach somewhat in dividing topics according to the physical phenomena being studied rather than according to the methods or projectiles used. The draft programme has six headings: Elementary particles as nuclear probes (their properties and elementary interactions), Elementary and composite particle interactions with nuclei (nuclear scattering production processes, capture processes), Nuclear structure (gross features, microscopic features), Nuclei as tools in elementary particle physics, New instruments and future trends, Applications to other fields.

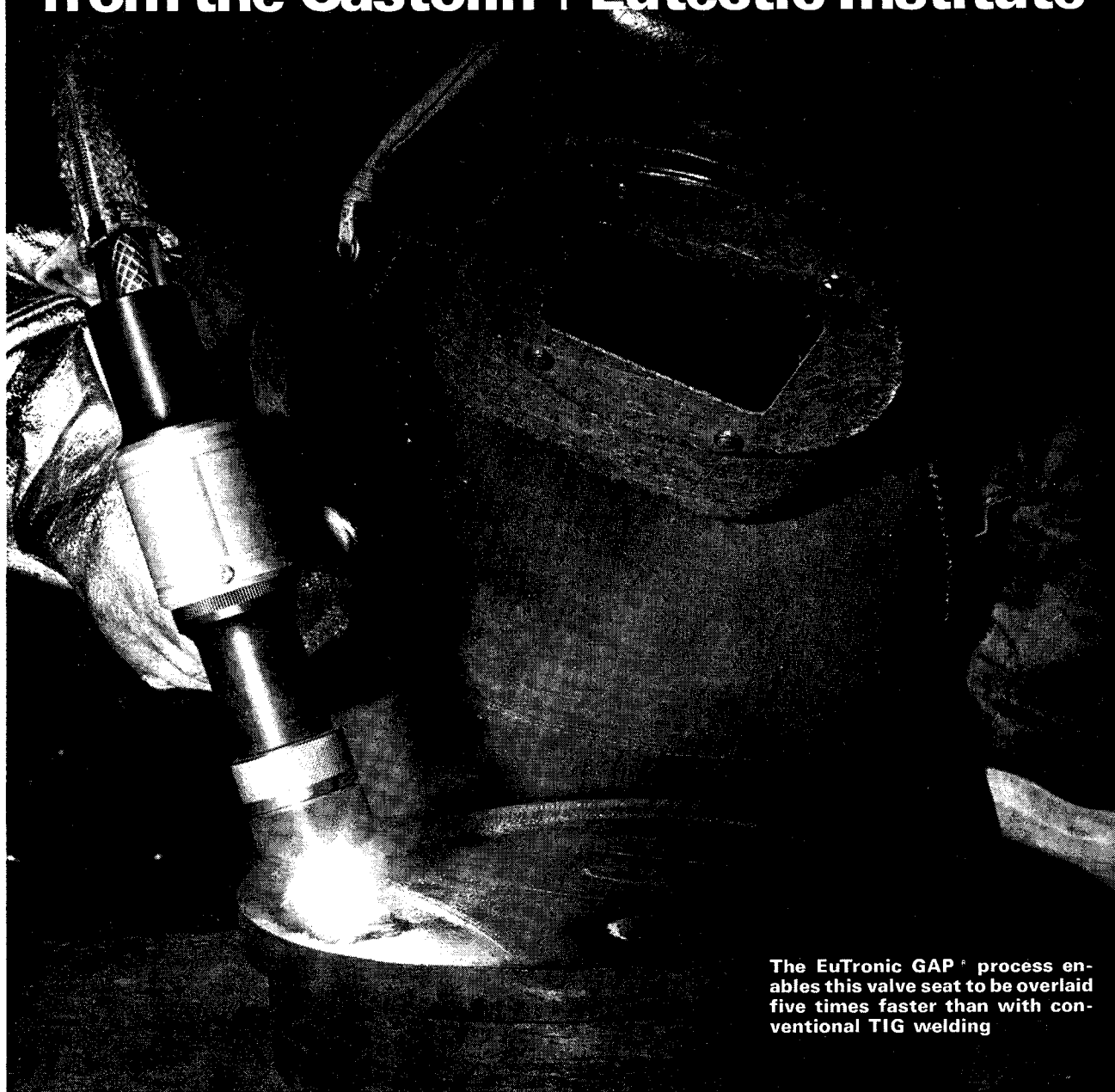
Attendance is by invitation and between 300 and 400 participants are anticipated. Further information may be obtained from G. Tibell, The Gustaf Werner Institute, University of Uppsala, Box 531 751 21, Uppsala 1, Sweden.

CC Correspondents

We close this volume of CERN COURIER recording our appreciation of the help we have received during the year from our correspondents in other Laboratories. Their participation in pulling information together for the journal is very valuable.

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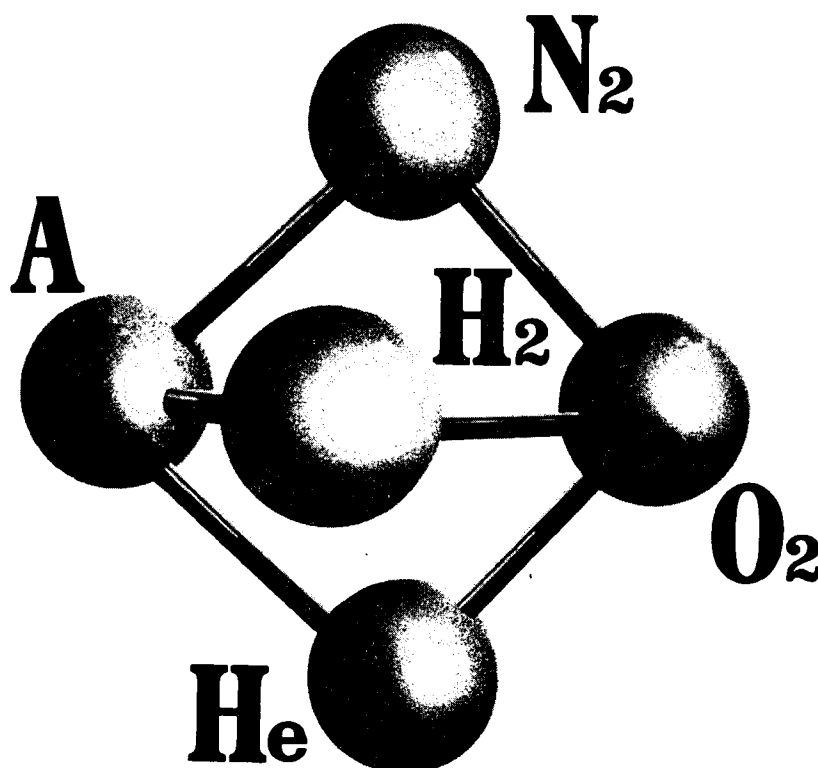
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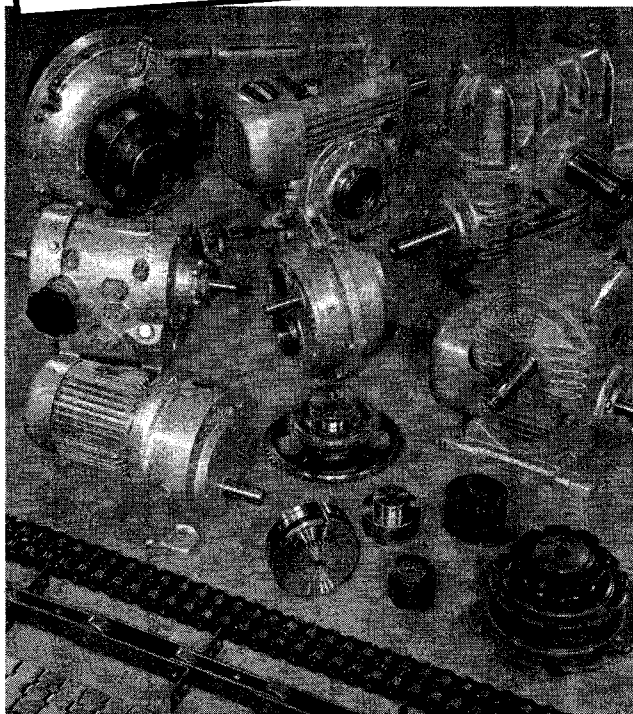


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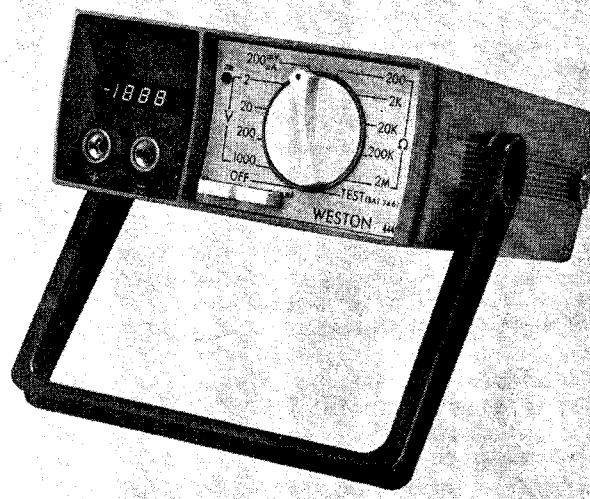
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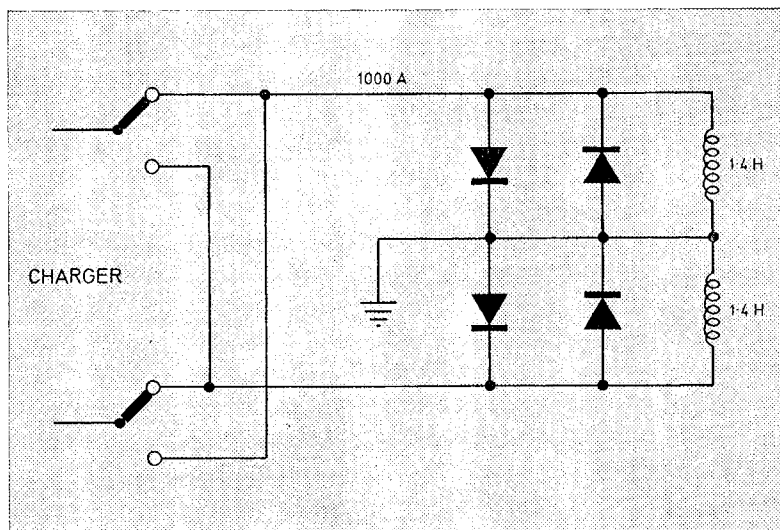
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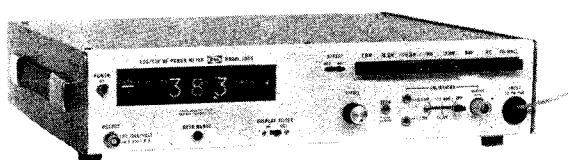
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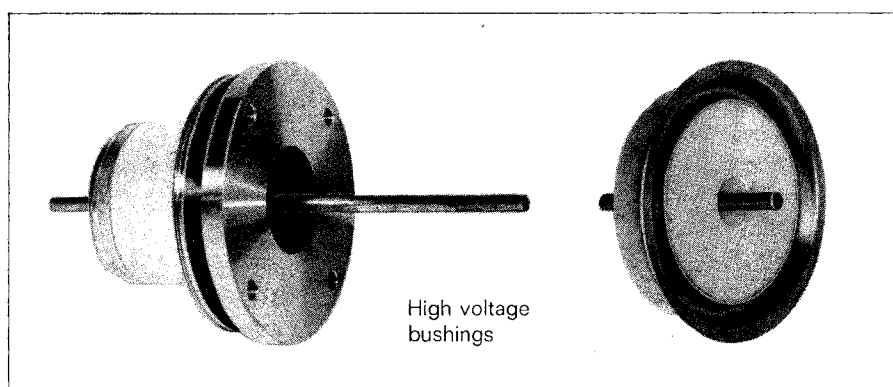
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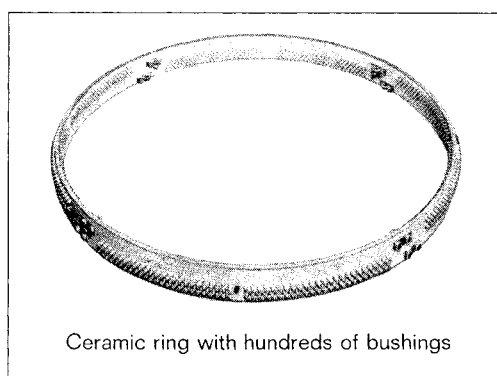
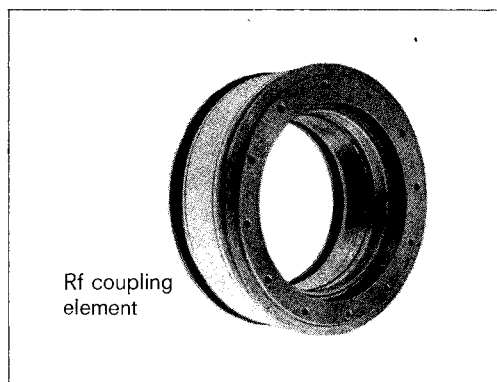
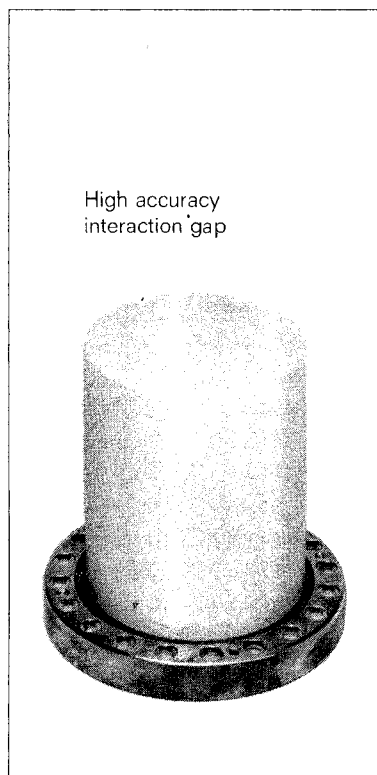
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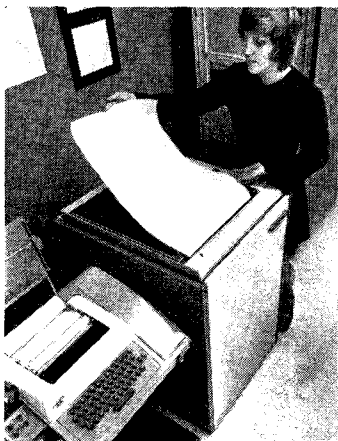


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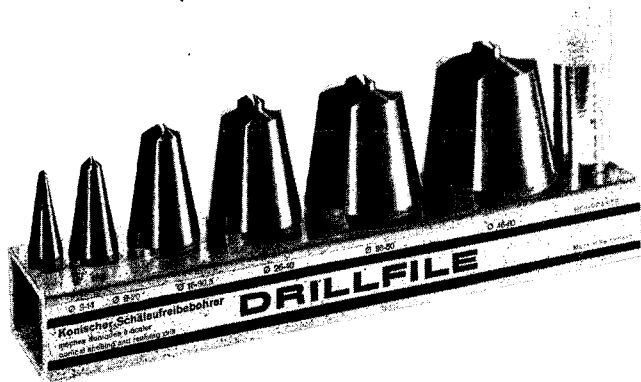
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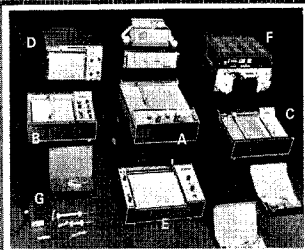
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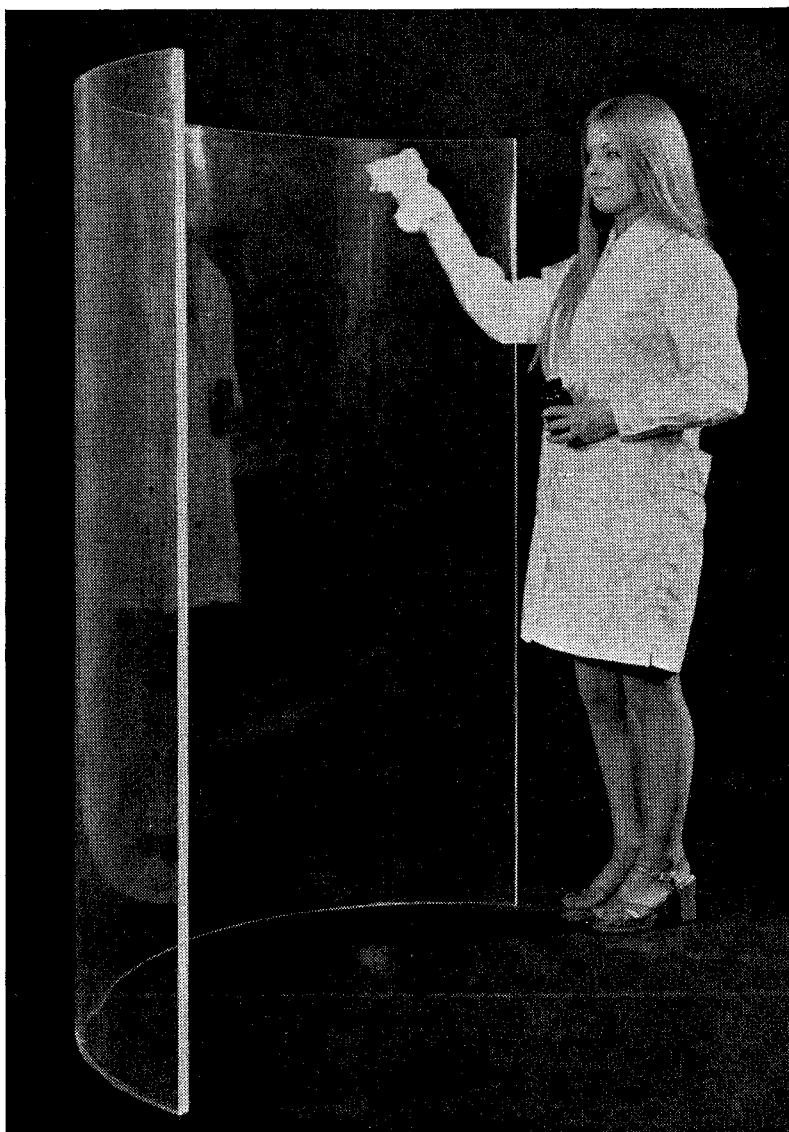
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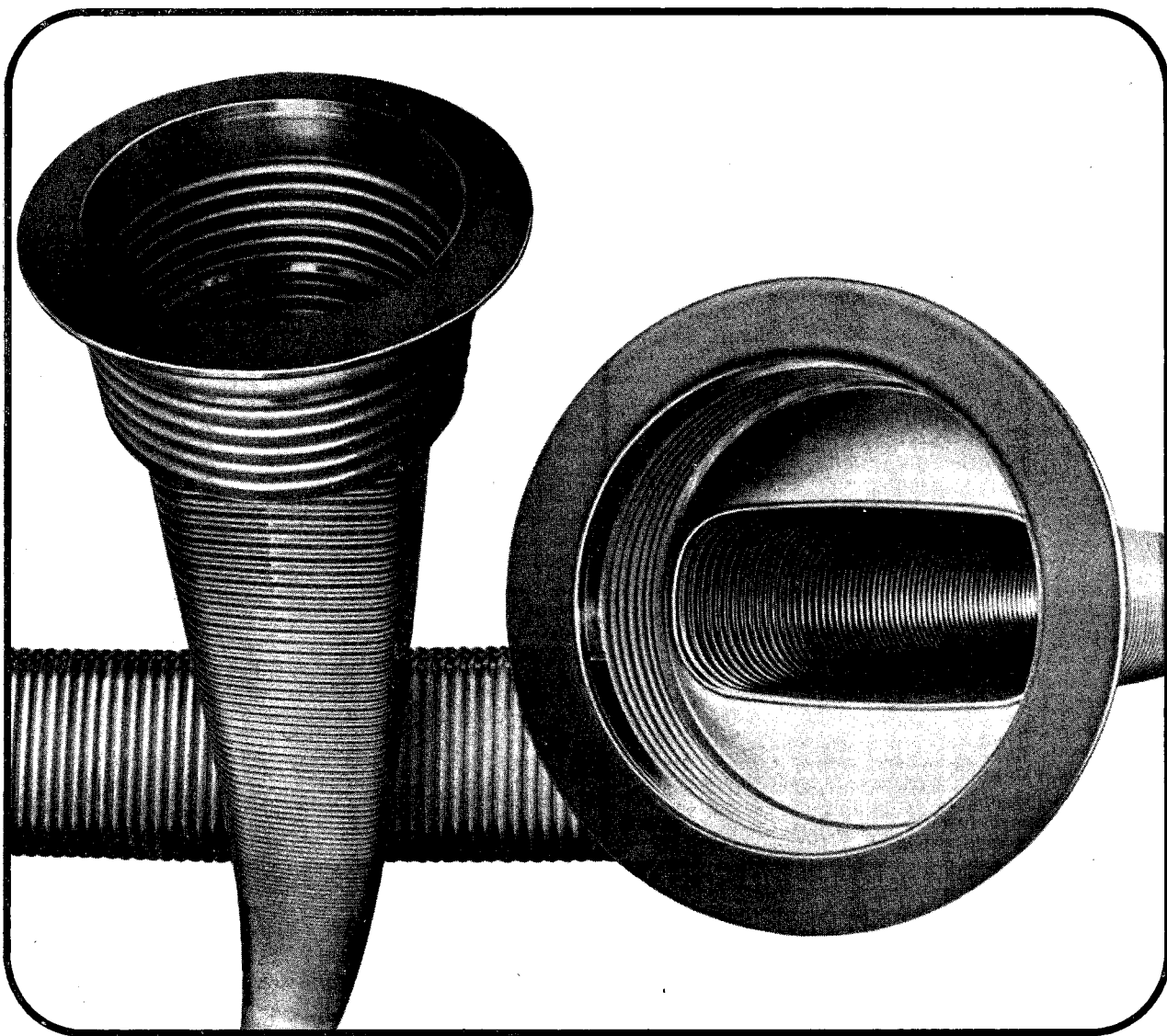
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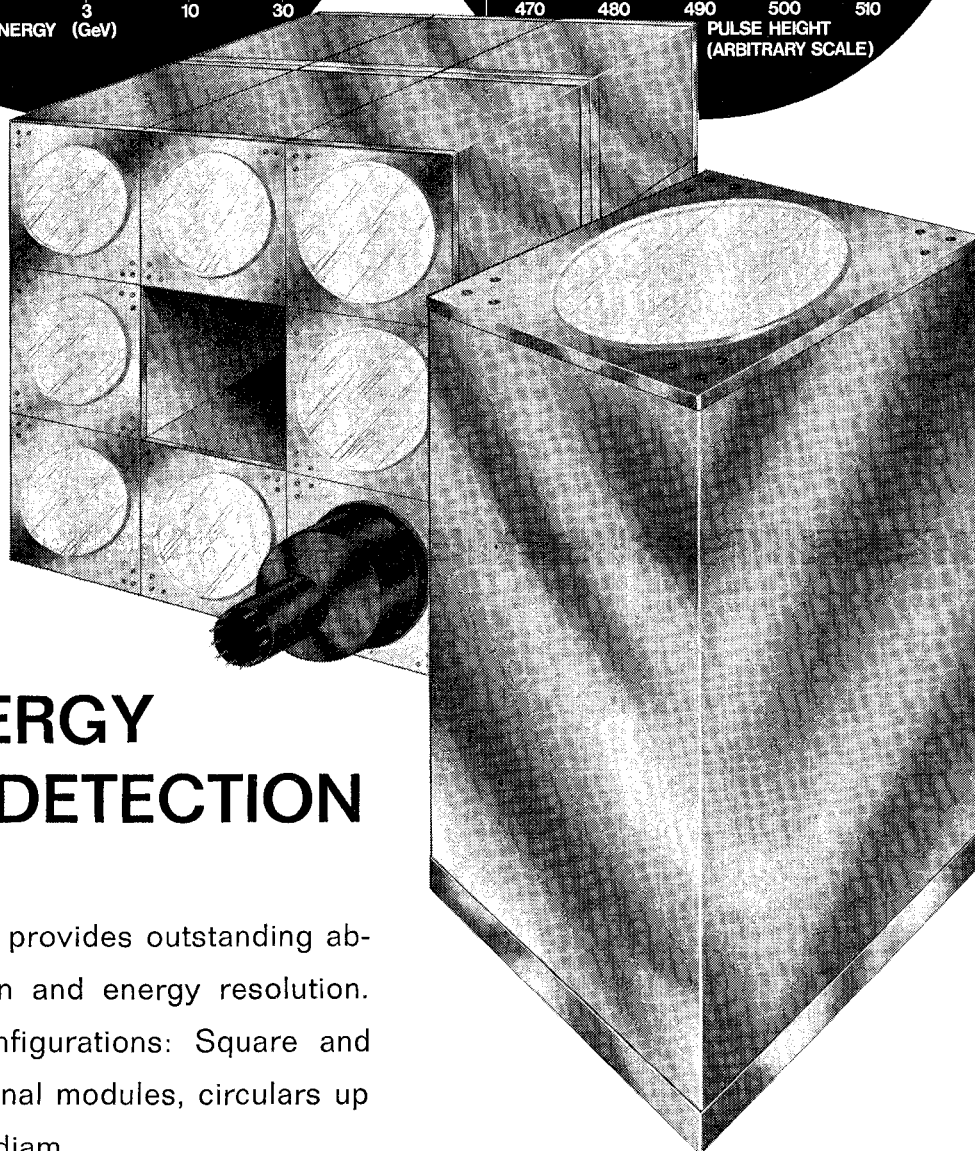
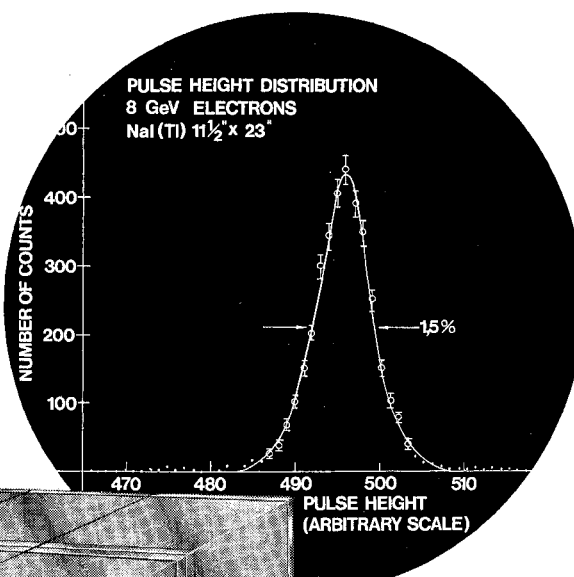
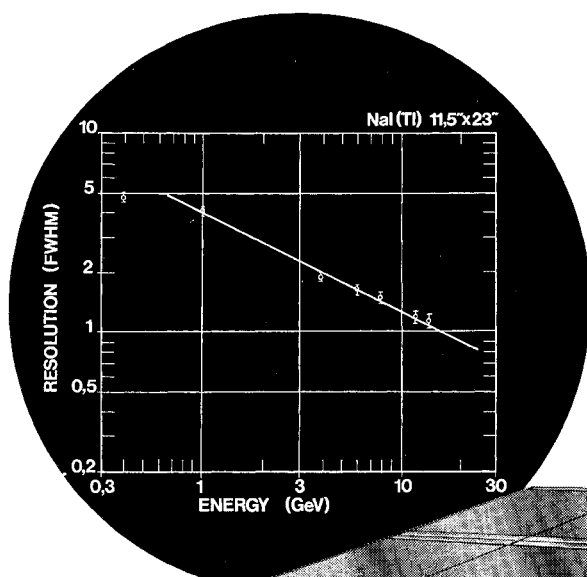
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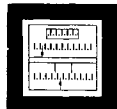
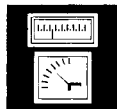
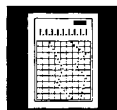
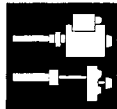
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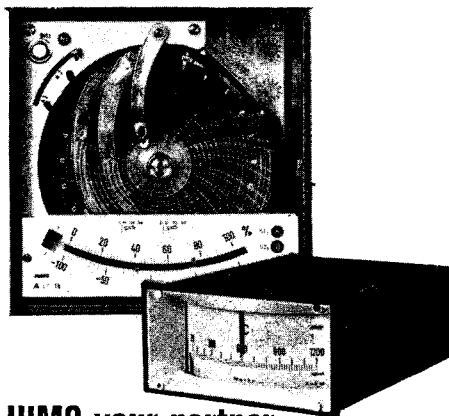
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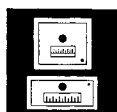
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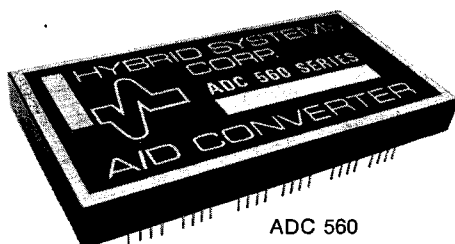
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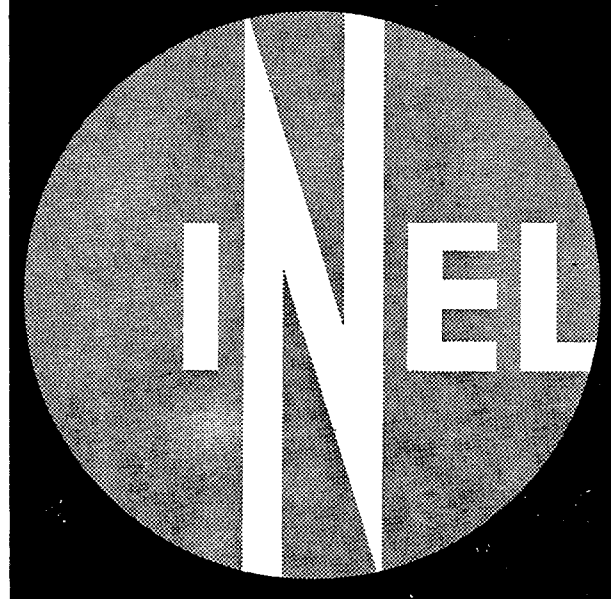


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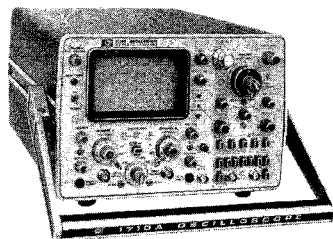


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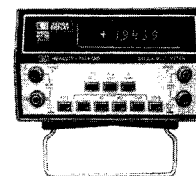
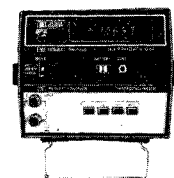


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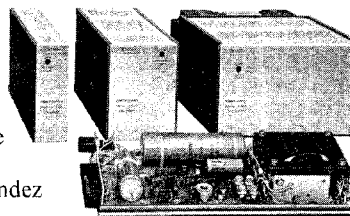
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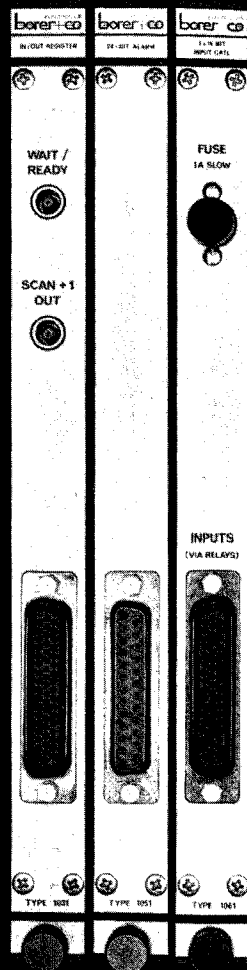
Une heureuse nouvelle pour les constructeurs d'équipements! Une série entièrement nouvelle de sources stabilisées est offerte à votre choix, et quand nous parlons de choix, nous pensons effectivement qu'il s'agit de pouvoir choisir! Nous mettons à votre disposition des blocs d'alimentations modulaires de la série 62000, qui existent actuellement pour les tensions de 3 à 48 volts. De plus, chacun d'eux est livrable en 4 intensités différentes. Tous ces appareils bénéficient du réseau local de services après-vente, dans 176 pays. Les prix également ont été ajustés pour satisfaire à votre demande, et des rabais OEM sont offerts.

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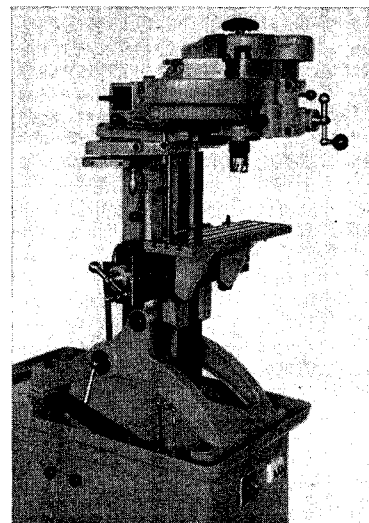
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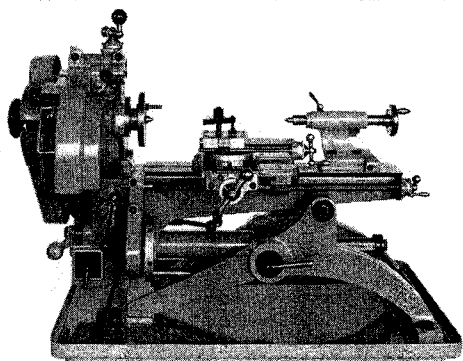
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Vertical milling machine UW 1

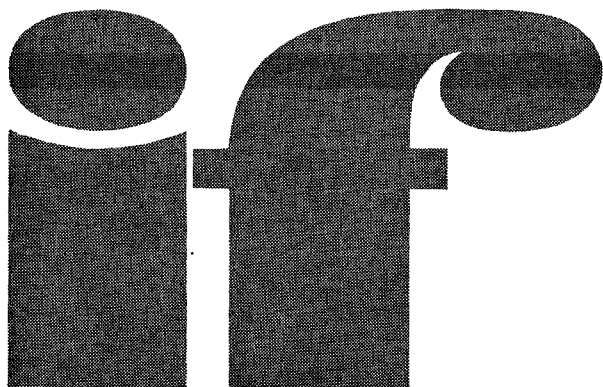
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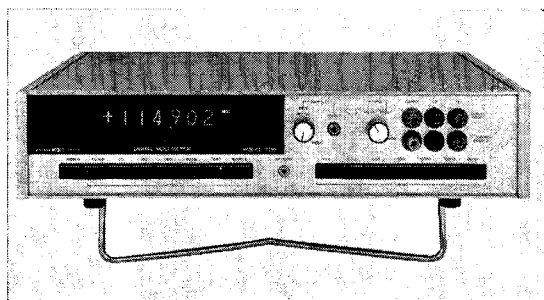


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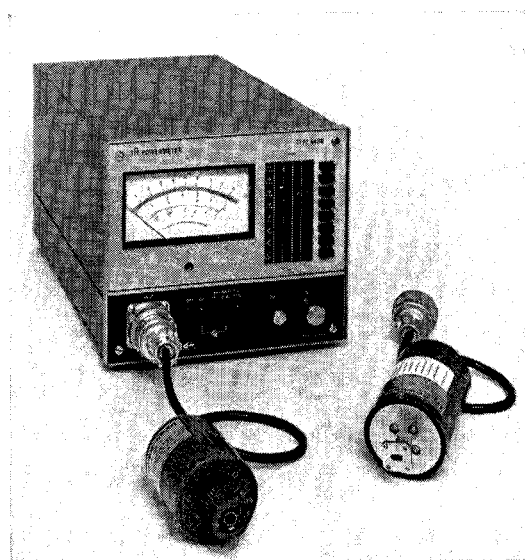
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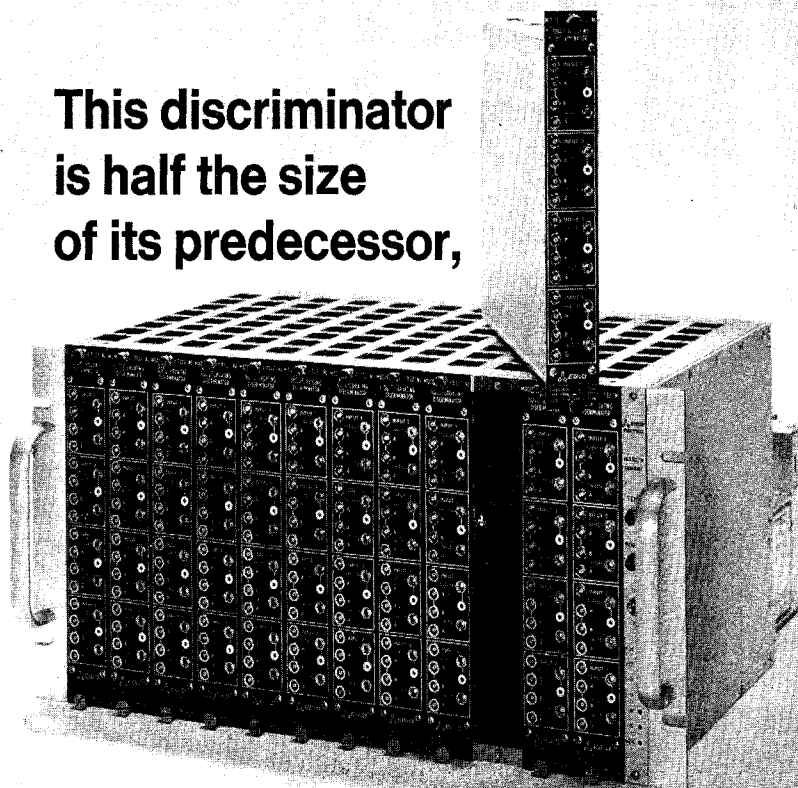
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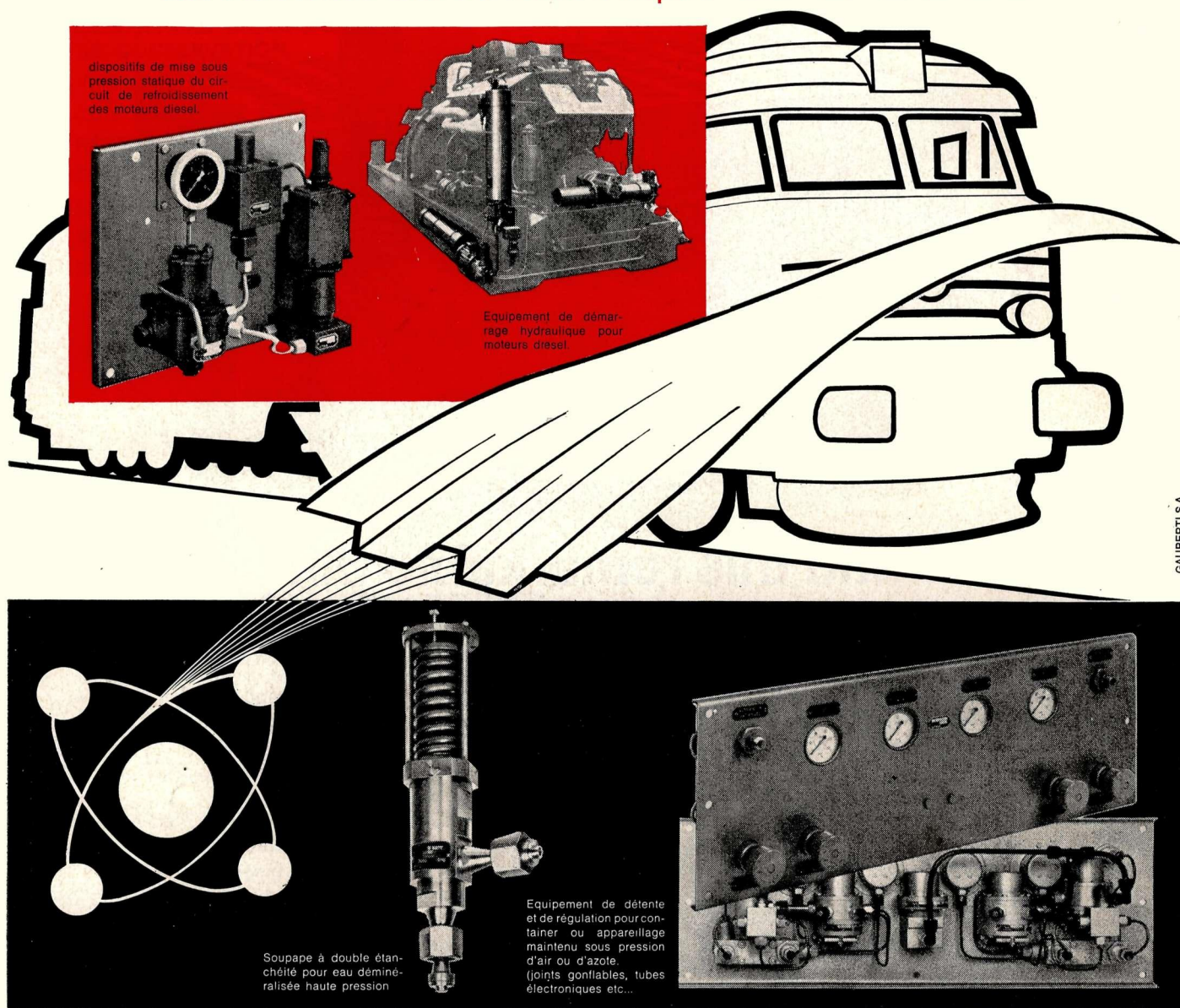
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