Zeitschrift: The Swiss observer : the journal of the Federation of Swiss Societies in the UK

Herausgeber: Federation of Swiss Societies in the United Kingdom

Band: - (1968)

Heft: 1546

Artikel: Scientific news

Autor: [s.n.]

DOI: https://doi.org/10.5169/seals-693393

SCIENTIFIC NEWS

Switzerland and Electronics

There is a great deal of talk today of Swiss achievements in the field of electronic watches, but it is only fair to call attention to the part played by certain related industries which contribute to the success of Switzerland's electronic products. Some time ago, a Neuchâtel firm, specialising in the metallurgy of precious and rare metals produced a platinum cobalt alloy of very high magnetic power, which Swiss industry previously had to buy abroad. The new Swiss alloy Pt-Co satisfies the highest standards and is used in the manufacture of magnetic clutches, various magnetic drive mechanisms, magnets for micro-motors, etc. Other industries, also called on to make their instruments smaller, will be able to use this new source of supply to solve the problems raised by the need for a strong magnetic source in a small volume.

Transmission of Graphic Data at a Distance; a Swiss Achievement

Recent progress in ordinators makes it possible to solve problems of stocking and transmitting graphic data at a distance (drawings, diagrams, etc.). But in order to perfect the range of instruments used in conjunction with ordinators, rapid and efficient decoding systems are required. An achievement of a Geneva firm, in this field, is a "step-by-step convertor" converting electrical impulses into precise angular displacements, of low amplitude. This new convertor comprises a moving admission shaft, driving a rotor whose engagement with a toothed wheel forming an integral part of the exit shaft is controlled by small electro-magnets excited by impulses receiver from the ordinator. The electrical power required for the operation of this convertor is about 1 watt. The maximum speed of operation of the prototype is 600 steps a second but it can probably be increased to 1,500 steps a second.

This new instrument makes it possible to operate mechanical parts with great precision, based on an electrical programme with a low level of power; it will have many uses: for machine tools (controlling the co-ordinates), textile machinery, curve tracers, fire correctors, aviation, telecommunications (step-by-step selectors), various machines (packaging, transfer, handling).

A Highly Perfected New Swiss Anemometer

A Lausanne manufacturer, specialising in electronic measuring instruments, has designed a new anemometer which will render invaluable service in the field of meteorology. It is an instrument with three propellers, fitted on three shafts at right angles to each other, so that the components of the wind are measured in the three planes in space. The data can be handled by the digital or analogical process by means of an electronic coder, making it possible rapidly to obtain various data concerning the wind measured, such as the horizontal projection of the wind or its bearing from a given direction.

New Swiss Contribution to Space Technology

Swiss engineers and manufacturers have designed and constructed the most modern aerodynamic tunnel in Europe for a German air and space navigation research institute. This tunnel is designed to simulate supersonic speeds of up to 10 mach (10 times the speed of sound) especially for the study of the strains to which space vessels are subjected on re-entry into the terrestial atmosphere.

Agrochemistry and Aviation: an Interesting Swiss Achievement

Ciba Ltd., in Basle, and the Pilatus Aeronautical Construction Works Ltd., at Stans, have joined forces to found Ciba-Pilatus Aerial Spraying Co. Ltd. at Glarus. The purpose of this new firm is to spray agrochemical products by plane, for big plantations all over the world, as well as to purchase, equip and maintain the planes required. The majority of the registered capital is in the hands of Ciba. Ciba insecticides and herbicides are used throughout the world today, especially on the big rice and cotton plantations. The most efficient way of spraying agrochemical products on these big plantations is from the air and the "Pilatus Turbo-Porter" plane, in its agricultural version, is particularly well suited to the aerial spraying of liquids, using the ultra low volume spraying process.

An Interesting Auxiliary Product for Dentistry

At the instigation of a Swiss dentist, a specialised firm at Olten recently produced a new anti-misting product for dental mirrors. This product is intended to prevent dental mirrors from misting up when introduced into a patient's mouth, which naturally considerably hampers the dentist's work. This is what usually happens when the mirror is cold and the patient breathes through his mouth. The Paracon D, in which the dental mirror is dipped for a few seconds after sterilisation, forms a microscopic film on the surface, which has no physiological effect but prevents the formation of mist. The same product can also be rubbed with a cloth onto other surfaces exposed to the formation of mist such as automobiles windscreens, etc. *(OSEC — Swiss Office for the Development of Trade.)*