

SCIENTIA INTERNATIONAL

NOVAS DEL MENSE IN INTERLINGUA

Anesthesiologia. – Impulsos electric applicate al thalamo per medio de microelectrodos implantate in ille organo resulta in un satis durative alleviamento de dolores del typo occurrente in cancre e certe lesiones neural. Le methodo, nunc in uso experimental al Schola Medical del Universitate Harvard, permitterea al patiente mesme de arrestar su suffrentias per activar le electrodos.

Automobilismo. – Un inappropriate positionamento del pedales in relation al sede del chauffeur pote resultar in le necessitate pro le chauffeur de mover le articulationes de su coxas plus que illos de su genus, e il occorre que le resultante fatiga se manifesta in dolores que es facile a misinterpretar como symptomatas de appendicitis. Iste factio esseva explicata in London, Anglaterra, per Dr. R. E. Beswick qui etiam notava que le inappropriate relation inter pedales e sede in question es un vitio de construction characteristic particularmente de numerose micre automobiles.

Automobilismo. – In position erecte un homine normal vide – sub normal conditiones – ad un distantia de circa cinque kilometros. In un basse auto sportive ille vide ad non plus que tres.

Chirurgia Cardiac. – Dr. Glenn T. Seaborg, Preside del Statounitese Commission pro Energia Atomic, ha revelate que le projectos initiate sub le egide del Commission include le disveloppamento de un pacemaker cardiac artificial que essera activate non per batterias sed per energia nuclear. Le duration vital del nove apparato va exceder illo del pacemakers nunc in uso per al minus 100 pro cento, i.e., ille duration va attinger inter sex e dece annos.

Cosmomedicina. – Es multimente demonstrate que organismos terrestre – como le terra mesme – seque, in numerose parametros, un curva unidorme a cyclo diurne. Iste cyclo pote, il es ver, esser disrumpite: in animales e plantas per interventiones artificial (e experimental); in humanos per exemplo per viages ad in altere zonas de chronometria. Sed un factio remarcabile es que le cyclo semper tende a restaurar se e semper, de facto, se restaura. Sub le influentia de que? Si le factores hic active representa fortias in le cyclo diurne del terra, il seque que astronautas futur – foras del sphaera de influentia del terra – va deber (1) exister sin lor cyclos natural o (2) simular los artificialmente. Recercas in iste dominio, que es plen de gravissime e obscurissime problemas, es currentemente in progresso al Universitate Northwestern in Evanston, Illinois.

Epilepsia. – In circa 85 pro cento del casos de epilepsia, le attaccos es sufficientemente maestrabile con pharmacos pro que le patientes pote sequer normal carrieras de vita e de travaglio. In le remanente 15 pro cento, le attaccos es troppo frequente e/o troppo resistente contra pharmacos pro permittre un tal solution. On spera que studios del activitate electric in le cerebros de epilepticos major va resultar in le possibilitate de determinar con alte grados de precision le sito del lesion cerebral que es responsabile pro le attaccos. Successo in isto aperirea le possibilitate additional de un intervention neurochirurgic. Recercas correspondente es currentemente in progresso in le schola medical del Universitate California a San Francisco.

Recercas de Cancere. – Es reportate ab le hospitales del Universitate Tokio que formas primari de cancre esseva arrestate in 26 ex 27 casos per un methodo consistente in le implantation subcutanee de sectiones de un pre-tractate specimen excidite ex le cancre del mesme patiente. Le pre-tractamento del tissu cancerose consiste in su incubation in un solution de dicarbonato de natrium effectuante le inactivation del cellulas maligne. Le absorption del re-implantate cellulas latentemente maligne per le corpore preveni – in un maniera que es non ancora comprendite – le extension metastatic del malignitate.

Pro information in re Interlingua e su utilisation practic como etiam su bases theoretic, adressar se per favor a: Science Service, Division de Interlingua / 80 East Eleventh Street / New York, N.Y. 10003 / U.S.A.

TECHNOLOGY

New British Nuclear Research Reactor Drawn

➤ **DESIGNS** for a new British research reactor will be revealed for the first time at the forthcoming International Nuclear Engineering Exhibition—NUCLEX 66—at Basle, Switzerland.

The reactor, called the F2 and developed by Fairey Engineering, Ltd., is an advanced form of water-moderated reactor useful for training, testing materials, producing radioactive isotopes and for experiments in radiochemistry and shielding.

Besides fitting easily into existing nuclear programs, the F2 can provide all the facilities needed for training engineers to operate reactors in countries with no nuclear experience of their own.

The F2 uses a fuel element recently developed by the United Kingdom Atomic Energy Authority. It is a uranium fuel, highly enriched (up to 80% to 90%) with the fissile element, (U-235) and made into hollow cylinders. This is a particularly good arrangement for materials testing because the specimens can be loaded into the center space for irradiation.

Elements forming the reactor's core are fixed in a tank and ordinary water is pumped through and around them to take away the heat from fission.

The water also acts as a moderator to slow down neutrons and as a shield. No control rods are necessary. The level of water controls activity and the whole of it can be dumped for fast shutdown.

GENERAL SCIENCE

U.S. Surgical Devices Demonstrated in Russia

➤ **THE SOVIET** Ministry of Health has invited Dr. Robert M. Hall, director of the Hall Surgical Design Foundation and former oral surgeon in Pittsburgh, Pa., to demonstrate his world-famous compressed air surgical tools. He will lecture in the USSR under the auspices of the U.S.-Soviet Scientist Exchange Program.

Dr. Hall's instruments, which have been patented in the United States, and which won for their developer the Master Design Award of 1966 for significant contribution to human welfare, are used by more than 12,000 American surgeons in more than 2,000 U.S. hospitals and medical centers.

His newest instrument can remove the top of a skull in two minutes easily and safely—a procedure that formerly required 40 minutes. Among his other instruments, now used in more than 300 surgical operations, are drills, saws and knives that require no electricity to “literally sculpture” bone from head to toes at 100,000 revolutions per minute.