

# SCIENTIA INTERNATIONAL

## NOVAS DEL MENSE IN INTERLINGUA

► **Agronomia.**—Le periculo de strontium-90, un del radioactive productos secundari de explosiones atomic, resulta del facto que iste elemento tende a reimplaciar calcium primo in le economia de plantas e subsequentemente de animales e humanos. Pro reducer le periculo, le agricultura de paises ingagiate in un guerra atomic deberea abandonar le cultura de plantas con radices superficial e con alte requerimientos de calcium. Patatas devendria alora un privilegiate producto agricultural.

► **Agronomia.**—Un vacca del raza Holstein, elevate per le statounitese Departamento de Agricultura in un de su stations experimental, ha establete le nove record de un production annual de 10,791 kg de lacte (con un contenido de grassia de butyro de 4½ pro cento).

► **Antibioticos.**—Un del major fabricas pharmaceutic del Statos Unite va lanciar al mercato un antibiotico destinate al uso in imbalsamar cadaveres human. Le objectivo es eliminar le periculo de contagiones accidental in autopsias.

► **Chirurgia.**—Al hospital ophthalmologic Henry Holland de Shikarpur in Pakistan Occidental, operations pro glaucoma, cataractas, e altere disordines oculares es executeat in massas sub le plus primitive conditions: sin aqua curante e sin le majoritate del facilitates que hospitales "civilisate" considera como indispensabile. Nonobstante, le proportion de successos e malsuccessos a Shikarpur non es minus favorable que a New York, Paris, o Stockholm. Le experientias e le methodos del chirurgo de Shikarpur es obviamente de interesse particular pro chirurgos militar.

► **Chirurgia.**—Le chirurgo japonese Dr. Kazumi Taguchi, qui travalia currentemente al Universitate Minnesota, reporta successo in operaciones cardiac effectuate sub le conditions de un nove tipo de hypothermia. Le temperatura del circulation general remane intacte (pro eliminar le periculo de fibrillation cardiac quando le corde es re-activate) e solmente le sanguine que circula in le cerebro es frigidate a 18°C per medio de un ducto extracorpore attachate al arteria carotic commun. Assi le requirements oxygenic del cerebro es reducite efficacissime. Operations con arrestos cardiac de un duration de usque a 14 minutus ha essite effectuate per iste metodo sin ulle consequente insulto cerebral.

► **Illumination.**—Ingenieros del compania Westinghouse experimenta con le uso de un phosphoro que esserea luminescente in le presentia de electricitate sed transparente e invisible quando le currente es interrumpite. Per medio de iste invention, vitros de fenestra pote esser fabricate que functiona durante le nocte como lampas electric sed que presenta nulle obstaculo al lumine solar durante le die. On crede poter perfectionar le invention in le proxime futuro e lanciar le fenestra-lampa al mercato in 1960.

► **Electricitate.**—Dr. G. K. Lewis del Universitate Illinois ha constatare in un studio special que alcoholicos es plus sensible al efectos de un choc electric que personas normal, que currente alternante es plus pericolose que currente directe, que basse voltages seque le curso del minimo de resistentia durante que alte voltages seque le curso le plus directe, e que un currente que passa per un organo vital—per exemplo le corde—es frequentemente plus a timer que un plus forte currente que passa per un organo minus delicate.

► **Electricitate.**—Le ressources hydroelectric de Nove Zelanda es limitate, sed le pais possede extense reservoirs de energia in le forma de

geysers e subterrane vapor aquose que pote esser utilisate in le alimentation de turbinas. Installationes pro iste objectivo es sub construction, e intra un anno Nove Zelanda va obtener 69,000 kilowatts ab su calderas natural.

► **Automobiles.**—Aluminum in omne colores del iride va esser usate in le ornamentos del automobiles de 1958. Le coloration del metallo es permanente. Illo es effectuate per un processo de anodisation que aperi le poros e permette le penetration del pigmento.

► **Medicina.**—Le causas de mongolismo e de leucemia es incognoscite. Pro ambe conditions, il es ver, on ha stipulate (independente) le possibilitate hypothetic que illos resulta de prenatal stresses chimic, physic, o infectiose. Un recentemente reportate studio statistic revela que le occurrentia combinata de leucemia e de mongolismo in le mesme individuo es tres vices plus frequente que lo que esserea explicabile como coincidentia accidental. Le supposition de un "denominator commun" in le etiologia del duo morbos pare multo plausibile.

► **Recercas Radiational.**—Post exponer amebas a duplemente letal doses de irradiation, investigatores al statounitese Laboratorio National Argonne ha succedita a salvar le vita de lor animalculos experimental in 91 pro cento del casos per simplemente transfunder in illos protoplasmab ab amebas non-irradiate. Le existentia de un specific factor de protection antiradiational in le protoplasmab esseva demonstrate per experimentos de centrifugation: le factor migrava con le componentes le plus pesante. Illo ha non ancora essite isolate.

► **Ingenieria.**—Le ponte Jacques Cartier super le riviera Sancte Laurentio in Canada debe esser elevate per circa 20 m pro permitter le passage de naives transoceanic. Le labor consumera duo annos sed essaera completate sin interruption del traffico transpontal. Le arcos individual del ponte ha un longor de usque a 80 m. Illos es elevate hydraulicamente passo per passo in unitates de non plus que 10 cm. Post omne quattro elevations, i.e. pro omne 40 cm de alto, le pilares es extendeat per le addition de capites de cemento armate.

► **Hematologia Bovin.**—Laboratorios in varie paizes, incluse plures functioninge a stations experimental del statounitese Departamento de Agricultura, collabora pro clarificar le relation inter le grupplos de sanguine de vaccas e varie factores genealogic. Le problema pare esser de interesse practic ab le puncto de vista del bovinatura scientific. On ha constatare que le grupplos de sanguine in vaccas es multo plus complexe que in humanos. Circa 50 factores antigenic es a considerar, de maniera que le typo de sanguine de un vacca individual es quasi invariabilmente unic.

► **Recercas de Cancere.**—Un studio statistic ha monstrate que cancere mammari es significativamente minus frequente in feminas qui ha portate e nutritre un o plure infantes que in feminas sterile. Infelizmente, le pluralitate de infantes non solmente reduce le probabilitate de cancere mammari; illo etiam augmenta le probabilitate de cancere del cervice uterin.

► **Phytopathologia.**—Post inocular fabas con virus de mosaico de tabaco, un gruppo de medicos del armea statounitese ha succedita a proteger le plantas contra le eruption del morbo mesme per immerger los in un extracto de ris. Usque nunc iste metodo de "vaccinar" plantas es un manovra puramente laboratorial.

Science News Letter, September 28, 1957

### GENERAL SCIENCE

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### SURGERY

#### Mass Surgery Good Even In Primitive Setting

► MASS SURGERY done "in the rough" under primitive conditions in West Pakistan has proved to be as good as that done in any of today's fully equipped hospitals.

The mass surgery is being performed on diseased eyes at the Henry Holland Mission Eye Hospital in Shikarpur, West Pakistan, and the good results are of considerable interest in case of mass casualties from an atomic war, Dr. Roland I. Pritikin, Rockford Memorial Hospital, Rockford, Ill., reported to the International College of Surgeons meeting in Chicago.

The hospital has electricity but no other utilities. Water is pumped by hand, toilets are outside the buildings and in the operating room an aide holds an electric light over the patient.

The visiting Hindus cook their own food outside on the hospital grounds, using dried cow-dung charcoal for fuel.

The hospital is located in an area considered to be the world center of eye diseases because of nutritional deficiencies, and its surgical team operates for cataracts, glaucoma and other eye ailments. This year, it treated about 3,000 patients from Pakistan and Afghanistan.

The success of the hospital's surgery is especially important to military surgeons. In spite of the tremendous volume of patients handled under primitive conditions, the number of cases that are unsuccessful is no greater than those cared for under the most ideal conditions, Dr. Pritikin said.

Science News Letter, September 28, 1957

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