

SCIENTIA INTERNATIONAL

NOVAS DEL MENSE IN INTERLINGUA

➤ **Electronica.**—In un nove typo de "oculo electric," ingenieros del Corporation Electric Westinghouse utiliza le radiation de un micre quantitate de strontium-90 in loco del fasce de lumine conventional. Le radiation es percipite per un photocellula de sulfido de cadmium. Le systema non es afficite per alterationes de temperatura o per choc, e illo functiona perfectemente in un atmosphaera plenate de vapor o fumo.

➤ **Physiologia.**—Al costa oriental de Nord-Anglaterra, scientistas del schola medical de London ha comenciate capturar phocas pro studiar le functionamento de lor pulmones. Phocas supporta sin difficultate pressioness submarin que haberea effectos disastrose super le pulmones de humanos. On spera que le clarification del mechanismo del pulmones de phocas va esser de adjuta in disvelloppar dispositivos que pote proteger aeronautas e submarineros contra le periculos de excessos accidental de pression.

➤ **Physiologia.**—Inter le musculos que activa le respiration—i.e. le musculos intercostal, diaphragmatic, e abdominal—solmente le musculos diaphragmatic es absolutamente indispensabile. Isto esseva constatate per Dr. A. Hemingway del Universitate California in un studio de 63 paraplegicos in qui le lesion primari esseva predominantemente un vulneration del medulla vertebral. In le casos in que le musculos respiratori del diaphragma habeva remanente intacte, le capacitate vital del pulmones esseva 70% del norma, e le maximo del capacitate respiratori amontava a circa 55% del norma.

➤ **Metallurgia.**—Le metallo niobium ha essite raffinate al Laboratorios Westinghouse in Pittsburgh a grados quasi inespere usque al presente. Le technica usate esseva repetite fusion in un quasi-absolute vacuo, resultante in le evaporation del impuritates. Niobium pur ha excellent qualitates—incluse un alte thermo-resistentia—pro le construction de reactores atomic e de motores altipotente.

➤ **Tuberculose.**—Un tertio del population del Statos Unite porta germines de tuberculose. Il es a supponer que 2.750.000 del portatores va disvelloppar le morbo in forma active. Le incidentia statounitense de tuberculose es currentemente circa 80.000 nove casos per anno. Le mortalitate es 8 per anno per 100.000 habitantes. Vaccination per BCG (bacillo de Calmette Guérin es possibile, sed le uso in massa de iste mesura es paucio desirabile proque le recipientes deveni reactores pseudo-positive in le tests cutanee que es indispensabile in le detection del morbo durante su prime phases.

➤ **Psychologia.**—Vermes de terra pote apprender a seliger un inter plure cursos possibile a transverso un labyrintho si on adjuta los per appropriate recompensas (terra humide) e penas (superficie aspere e choc electric). Dr. J. Arbit del Armea Statounitense reporta que le vermes usate per ille in un serie de tal experimentos esseva definitive e significativamente plus disciplinabile (i.e. "intelligente," si on refere iste termino) in le vespere que in le matino.

➤ **Chirurgia.**—Methodos microautoradiographic e microdensitometric ha permittite a Drs. M. R. Urist e N. MacDonald del Universitate California observar le destino intracorporee de grafos de osso a immagasinage prolongate in un del si-appellate "bancas de osso." Le graffo age como un modulo. Illo stimula le processos regeneratori del organismo e es gradualmente absorbite e re-eliminate. Minerales marcate per radioisotopos in le grafos se retrova post certe intervallos de tempore in omne partes del skeleto.

➤ **Cardiologia.**—Le studio roentgenographic del arteria coronari ha devenite plus promittente gratias a un technica novemente disvelloppate al Universitate Oregon. In illo le rapide diffusion (e le consequente inefficacia) del substantia de contrasto es evitate per obstruer le aorta momentaneamente e in perfecte simultaneitate con le injection del substantia de contrasto, immediate ante le obtention del roentgenogramma. Le obstruction del aorta es effectuate per le inflation de un micre ballon al puncta de un catheter.

➤ **Cancere.**—Esseva constatate al Universitate Baylor in Texas que frottis cervical ab feminas normal e noncancerose in stato postpuerperal exhibi frequentemente signos currentemente asociate con cancere. Tal signos esseva trovate in 15 ex 125 casos, sed nulle del 15 disvelloppava cancere.

➤ **Physiologia.**—Le pression del sanguine in le venas—que es multo plus basse e multo plus difficile a determinar exactemente que illo in le arterias—va devenir plus facilmente mesurable gratias a un instrumento construite per le physiologo german Dr. O. H. Gauer. Le instrumento consiste de un filo metallic que es inserite in le venas, portante a su puncta un minuscule piston que es elasticamente suspendite in un campo magnetic. Le pression de sanguine altera le position del piston in le campo magnetic con consequente modulationes del corrente in le filo. Iste corrente es amplificata e registrata como indice del pression de sanguine.

➤ **Transfusiones de Sanguine.**—Un enquete statistic ha revelate que in le curso del passate anno le hospitales statounitense ha consumite circa duo e medie milliones de litros de sanguine pro objectivos de transfusiones therapeutic. Le numero del patientes assi tractate esseva circa 1.993.500. Le numero medie del transfusiones per patiente esseva 2,3.

➤ **Pharmacologia.**—Le facto que le effectos de aspirina (acido acetylsalicylic) es reproducibile per medio de acido gentisic ha inspirate Dr. J. E. Christian e R. Crabtree del Universitate Purdue a investigar le relation biochimic del duo substantias. Rattos in stato febril esseva tractate con aspirina marcate con C-14. Le analyse subsequente del organos que es cognoscitemente accumulatores de aspirina—i.e. le sanguine, le pulmones, e le glandulas adrenal e pituitari—revelava, como expectate, le presentia in omne casos de aspirina marcate per C-14. In le caso del glandula pituitari—e solmente in iste caso—C-14 se trovava etiam como parte de acido gentisic. Il pare plausibile concluder que aspirina produce su effectos therapeutic solmente post su transformation in acido gentisic per le glandula pituitari.

➤ **Radar.**—Es reportate ab Anglaterra le scoperta de un substantia que non reflecte sed absorbe le radios de radar. Aviones, naves, projectiles, etc., quando revestite del nove substantia, essera complete mente indetegibile per radar.

➤ **Nutrition.**—Duo expertos del Ministerio Britannic pro Alimentos e Agricultura ha investigate le estranie appetitos frequentemente experientate per feminas in stato de pregnantia. Ex 1.000 feminas questionate, 187 habeva habite un grande appetito pro carbon e 17 pro mustarda, pipere, sal, e altere species. Minus estranie (ben que estranamente exaggerate) esseva le appetito pro varie fructos e cereales. Forte disgusto pro alimentos previamente preferite esseva etiam un phenomeno multo frequente.

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GENERAL SCIENCE

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AGRICULTURE

Fall Planting Gives Better Crops Next Year

➤ **NOW, NOT** in the spring, is the time to think of setting out strawberry plants, says Prof. George L. Slate of Cornell University's New York State Experiment Station, Geneva, N. Y.

In tests with eight varieties, fall-planted berries out-yielded those set in the spring by about 20% for all varieties.

Plants set this fall will produce a full crop in 1959. They will send out runners earlier next spring and in greater numbers than do strawberries planted at the usual time. It is these early runners that produce most of the fruit the following season, explains Prof. Slate.

Disadvantages of the new planting time are the need for extra mulching to protect plants and the problem of weeds. However, the soil is generally in better shape for working now and other farm and garden work is less pressing.

In parts of the country where winter temperatures are relatively mild, there are also advantages to early winter planting of orchard trees.

Winter rainfall, the U. S. Department of Agriculture advises, is an important thing to consider in deciding when to plant and fertilize the trees. Rain will carry the applied nutrients into the root zone, putting them right where they will be needed when the tree starts growth in the spring. Soil also is packed more firmly about the roots through the rain's action.

Where the temperature falls below zero, early spring planting is still recommended.

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