

MEDICINE

New Relief for Arthritics

A gland chemical and vitamin combination may substitute for cortisone and ACTH in arthritic treatment. Good results of this treatment are reported.

➤ A COMBINATION of a plentiful gland chemical and a vitamin may become a substitute for scarce cortisone and ACTH in treatment of arthritis.

Good results with this treatment are reported by Drs. E. Lewin and E. Wassen, of Sahlgren's Hospital, Gothenburg, Sweden, in the *LANCET* (Nov. 26), British medical journal.

The gland chemical they used is from the adrenal gland cortex, which is also the source of cortisone. But it is a different chemical, known as desoxycorticosterone acetate. The vitamin is ascorbic acid, or vitamin C.

Both vitamin and gland chemical were given by injection, the gland chemical into the muscles and the vitamin into the veins. Within five minutes joint pain in arthritis patients began to ease and the joints could be moved more readily. Fifteen to 20 minutes later, the pain had practically disappeared. The joints could be moved as much as the wasting of muscles and changes in the joints from the disease would allow.

All of the nine patients given this treatment reacted in the same way.

"In some cases the improvement was astounding," the Swedish doctors report. "One of the patients was completely crippled by pain and contractures after rheumatoid arthritis for 15 years. After one combined injection, she sat up with ease and moved her arms and legs about freely. All her pain had gone. It was noted that the skin became warmer and redder in the articular (joint) regions after the injection.

"Some patients became greatly exhilarated after the injections, more than one would expect," the doctors state, "from the mere relief of pain.

"The effect lasted from one to six hours, occasionally more than 24 hours. It seems as though it lasts longer with each further injection. In more acute cases one or two injections have been enough to banish the pain for two or three weeks (the present observation period)."

The good results with desoxycorticosterone are "unexpected," the *LANCET* editor points out. The Canadian scientist, Dr. Hans Selye of Montreal, has found that rats treated with this hormone over a long period often developed arthritis.

An American scientist, Dr. Edward F. Rosenberg of Chicago, tried this hormone in arthritis patients and found it of no benefit.

The Swedish doctors seem to have changed this chemical's action "profoundly",

the *LANCET* editor states, by giving it with vitamin C. But the editor warns that much more work will be needed before their observations on patients can be reconciled with Dr. Selye's experimental work.

If the Swedish doctors' results are confirmed, the editor states, "the discovery will be a great step forward" because desoxy-

corticosterone is made synthetically and is relatively plentiful, as is also vitamin C, whereas both cortisone and ACTH are rare and likely to remain so.

Vitamin C, the Swedish doctors found, was not effective in combination with the gland chemical when the vitamin was given by mouth.

Relief obtained from the combined treatment lasted four days after a pellet, or pill, of the gland chemical was implanted in the muscles of the patient and the vitamin injections were given every sixth to eighth hour. At the time of their report this had been tried only in one patient and only four days had elapsed since the pellet was planted in the patient's body.

Science News Letter, December 24, 1949

GENERAL SCIENCE

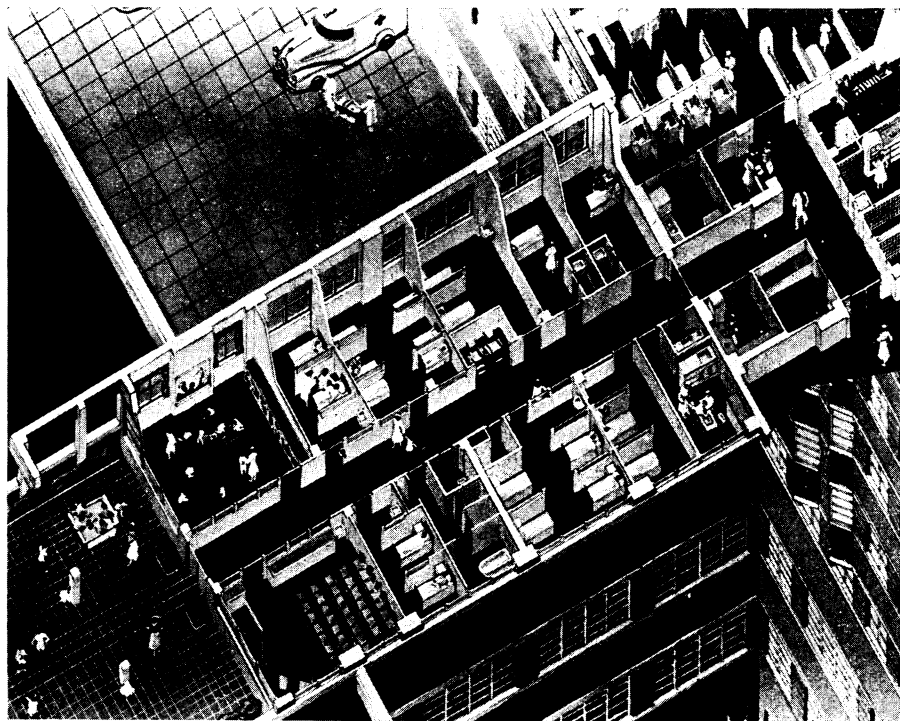
Unified Science Is Possible

➤ THE welding together of all the sciences into one "unified science" lies in the imminent future. It is being made possible by the discovery of certain principles of interaction between things, beings, and groups, which are applicable to all sciences.

These ideas were presented at Yale University's Osborn Biological Laboratory in New Haven, Conn., by Edward F. Haskell,

research associate of the Foundation for Integrated Education.

By reducing the basic axioms and concepts of a given science, such as biology, to mathematical values, it is possible, Mr. Haskell said, to plot them geometrically, on a graph. This graph, which he calls a "coaction rose", is basically two straight lines at right angles to each other, like the



FOR CHILD CANCER VICTIMS—The proposed Children's Wing at Memorial Cancer Center, New York City, as shown above in three-dimensional drawing, is part of the expansion program planned by Memorial Cancer Center. John D. Rockefeller, Jr., has pledged a donation of \$2,000,000 toward the \$5,250,000 construction and teaching program, contingent upon the raising of a matching sum by the Center.

four quarters of a mariner's compass. On it he plots the interactions (coactions) of various scientific principles.

This kind of analysis, Mr. Haskell said, shows that such sciences as genetics, systematic biology, and sociology naturally fall into classifications comparable to the periodic table of chemistry.

"It is likely that today, in 1949, we stand before a development of biology and social science comparable to that of chemistry in and after 1869, the year Dmitri Mendeleev invented, or discovered, the natural classification of the chemical elements," he said.

He pointed out that the "mathematization" of conventional scientific terms is unifying scientific theories today in much the same way that the mathematical equations of Clerk Maxwell, the 19th century British physicist, unified the sciences of light, magnetism, and electricity.

Mr. Haskell is chairman of the organizing committee of the Council for Unified Research and Experimentation. His lecture, entitled "The Emergence of Unified Science, (The Appearance of Mendeleev's Periodic Law in Genetics, Systematic Biology, and Sociology)," was given under the auspices of the Foundation for Integrated Education.

Science News Letter, December 24, 1949

HORTICULTURE

Scientist To Spend 92nd Birthday in African Jungle

► LIBERTY Hyde Bailey, the greatest authority on palm trees, garden plants and blackberry bushes in the world, will spend his 92nd birthday next March while on an expedition in the jungles of Africa. He plans to bring back with him rare specimens of palms to add to the collection of 150,000 plants in the Bailey Hortorium at Cornell University. "Hortorium" was a new word, manufactured by Dr. Bailey, which he felt more accurately described his collection than "herbarium."

Long and sometimes dangerous plant collecting trips are no novelty to the still

vigorous horticulturist. He spent his 90th birthday alone on an island in the Caribbean, his 89th somewhere up the Amazon River in Brazil.

Dr. Bailey plans to take off by plane sometime next month for Africa, and he'll probably go alone. As to just how he proceeds after he gets there, he doesn't know. "I can organize the trip after I get there," he said. "There is no rush."

Officials at the Bailey Hortorium aren't worried about his lack of plans, however. Dr. Bailey has traveled 250,000 miles in his long lifetime and he has collected 275,000 plant specimens.

In addition to his travels all over this country, in South America, China and New Zealand, Dr. Bailey has found time to be the pioneer of modern agricultural educational methods, to edit 156 books about plants, to edit a magazine and to engage in plant breeding and experimentation. He accomplished all this because at an early age he planned his own life program: 25 years of study, 25 years of teaching and 25 years to do whatever interested him most.

Now well into his fourth 25-year hitch Dr. Bailey is still enjoying himself, still traveling and still collecting plants.

Science News Letter, December 24, 1949

GENERAL SCIENCE

Eva the Engineer Must Remember To Be Eve

► EVA the Engineer will do all right in such a masculine profession as engineering if she remembers to be Eve first of all and an engineer secondly.

This advice comes from a woman who apparently has followed it herself and avoided lonely spinsterhood and being thought "a little queer." She is Mrs. Florence F. Buckland, heat transfer and fluid flow consultant in the General Electric Engineering and Consulting Laboratory.

She also advised teachers and textbook writers to take the feminine viewpoint, remembering that "electricity, heat and op-

tics might be explained in terms of sewing machine motors, cooking and moonlight" and that the properties of matter apply to a cake of soap as well as to a chunk of iron.

Mrs. Buckland's ideas on engineering as a career for women were presented at the meeting in New York of the American Society of Mechanical Engineers.

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Chromium, essential in stainless steel and widely used in other applications, is largely imported, the United States producing only about 1% of what it uses.

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