

with many more mice to confirm these results. Dr. Bittner reports such experiments have already been started and indicate similar results.

Previous investigations establishing the existence of genetic influences outside the chromosomes in the causation of breast cancer in mice have already been

reported by Dr. Clarence Cook Little of the Jackson Memorial Laboratory.

The work described in Dr. Bittner's preliminary report was all done with mice. No mention of human cancer was made and no relation should be drawn between these experiments and problems of cancer prevention in man.

Science News Letter, August 29, 1936

GENETICS

New Knowledge of Heredity From Study of Primrose

Two New Strains Developed by Dr. Shull Show Characteristics Not Found Even Among Wild Relatives

USING primroses as his laboratory "guinea pigs" for experiments on evolution, Dr. George H. Shull, professor of botany and genetics at Princeton University, has advanced two steps further in his study of the mechanics of heredity with the location and separation of two new strains of Lamarck's evening primrose.

One variety of the species, known as *acuminata* because of its long pointed leaves, first appeared just recently in the experimental field of forty thousand plants. The other strain, called *pollicata* after the solid stem it grows between the ovary and style, appeared in 1932 and 1935, but was not proved to be a separate and distinct strain until this summer.

The new plant is striking in that its long leaves almost completely lack the usual crinkledness of the primrose. Its characteristics are recessive, as is demonstrated by the fact that the *acuminata* appeared in only six out of 25 plants, indicating a one to four ratio for these characteristics in the offspring of the hybrids.

The *pollicata* first appeared for Dr. Shull in 1932 when it occurred as a gene mutation in pure bred material of Lamarck's evening primrose. Last year it appeared anew in another strain of this species, independent of its previous origin in 1932.

New Strain

This indicated that the *pollicata* might be a latent characteristic of all primroses, rather than a new development, so Dr. Shull crossed this plant with all 25 different strains of his evening primrose.

The *pollicata* has now reappeared

only in the offspring of the family in which it appeared last summer. None of the crosses with the other plants produced this solid-stemmed flower with "clubby" stigmas, proving that this is now another new strain of the primrose.

It is entirely possible, Dr. Shull explained, that the *pollicata* might be developed independently in any other experimental work in primroses, but to date this is the only example of this solid-stemmed variety, which is not even found among the wild relatives of the primrose.

The dry weather of the past few weeks has stunted the size of Dr. Shull's plants, but has not hindered the effectiveness of the bloom. The total number of plants growing this year is nearly three thousand larger than the number Dr. Shull has been able to handle any one year at a time since he began this experimental work in 1905.

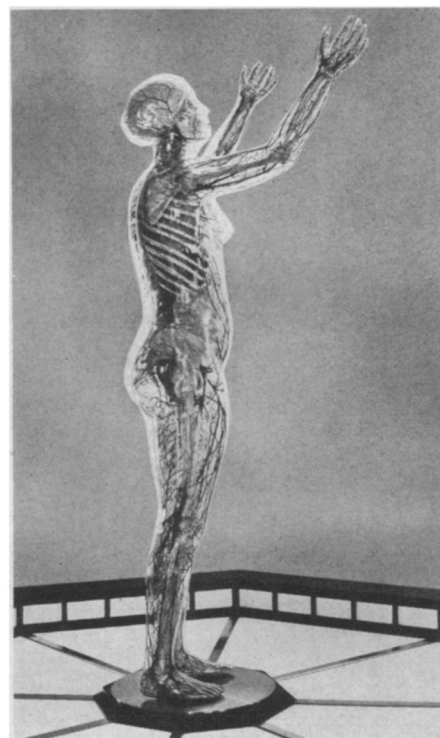
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PHYSIOLOGY

Woman Without Mystery On Display in New York

"THE WOMAN without a mystery"—a transparent, life-size anatomical model showing every organ, veins, arteries, nerves and skeleton in a woman's body—is on display at the New York Museum of Science and Industry.

Following the private showing before a distinguished group of physicians and scientists, the counterpart of the now famous "transparent man" will go on a two-year tour of 100 cities of the nation. A doctor-lecturer will introduce the figure to scientists, public health officers and the medical profession nationally.



NO SECRETS

The model, which took two years to construct in the Dresden, Germany, Hygiene Museum, is the property of S. H. Camp, philanthropist of Jackson, Mich. It is the only one of its kind in existence.

Cellhorn "Skin"

Outer covering of the transparent woman is a tough, clear material known as cellhorn, made by a secret process only in the German museum which built the intricate model. Cellhorn is a synthetic material which is non-inflammable and almost unbreakable.

Viewing the figure is a weird sensation akin to having something like X-ray eyes. Embedded in the outer transparent covering one sees the veins and arteries interlacing through the body. The nerves spread from the brain and spinal column to their tiny ramifications at the body extremities. Deep inside the figure the skeletal structure is visible, partially covered in places by the various organs of the body proportioned and located as in real life.

Through an ingenious lighting system each organ of the body is illuminated in turn until the whole body stands forth in natural color. As each organ is illuminated its name appears on glass labels around the base.

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Some fish can "sing" by rubbing together the pectoral fin-rays.