

was no such girl as Minnehaha.

The real Hiawatha married twice but not to any lovely maid of the Dacotahs by the name of Laughing Water. Dekanawida devoted his life to his mission of bringing peace to the tribes, and nothing is said about his marrying.

It is believed that Longfellow got the singing name for Hiawatha's bride out of a book on the Sioux. In this book he read the legend about the beautiful waterfall in Minnesota known as the Minnehaha or Laughing Waters.

School children learn about Indians from Hiawatha, and that means that they get their introduction to Indian life as it was among Chippewa Indians, on the forest shores of Lake Superior. When Schoolcraft mixed a Chippewa god in with his Iroquois Indians to make Hiawatha, he gave him a Chippewa background. Schoolcraft found the Chippewas more interesting than the Iroquois. In fact, he became so intensely interested in one Chippewa that he married her.

When Longfellow studied the Schoolcraft legends, therefore, and wrote the lines beginning, "Give me of your bark, O Birch tree," he was describing a Chippewa canoe. An Iroquois would have made his canoe of slippery elm bark, for no canoe birch grew in New York State.

Longfellow's poem, as science sees it, is fantasy with a remote and confused historic background. But the spirit of "Hiawatha" is the spirit of the red man at his best. The forest life of the Chippewa described by the poet has given many a school child a glimpse into the Indian's lost world. And now science has given back to Dekanawida and Hiawatha their proper place in the roll of fame. So all's well that ends well.

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## ▼ R A D I O ▲

### THE DEPRESSION AND THE NATION'S HEALTH

an address by

**Edgar Sydenstricker**

Director, Public Health  
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Memorial Fund

Wednesday, Aug. 29, at 3:30  
p. m., Eastern Standard  
Time, over Stations of the  
Columbia Broadcasting System. Each week a prominent  
scientist speaks over the  
Columbia System under the  
auspices of Science Service.

PHYSIOLOGY

# Curse of the Hapsburgs Claimed Spanish Prince

## Alfonso's Son Inherited Fatal Bleeding Tendency From His Mother, Though Women are Never "Bleeders"

**H**EMOPHILIA, the hereditary disease of bleeding, that contributed to the death of ex-King Alfonso's fourth son, Prince Gonzalo, is one of the strangest of maladies.

It affects only the male but it is transmitted only by the female who herself does not have the difficulty. It thus skips a generation.

In the case of the ex-royal family of Spain, Queen Victoria, though herself not hemophiliac, nevertheless passed on to some of her sons the liability of severe and recurring bleeding. The eldest son, Prince Alfonso, who renounced his right to the now non-existent throne of Spain in order to marry a commoner, is also known to be a "bleeder," while the other two sons are reported as not being so afflicted.

In another way the "bleeding disease" has brought tragedy into the life of Spain's ex-royal family. Ex-King Alfonso in 1931 forbade his two daughters to marry because he realized the danger that they might transmit this ailment to some of their sons. This command broke off the engagement of the Infanta Beatriz to Prince Alvaro d'Orleans. By a coincidence it was the Infanta Beatriz who was driving at the time of the slight but fatal auto accident to Prince Gonzalo.

The disease also existed in the family of the last of the Romanoffs, Tsar Nicholas II. Alexis, the late Tsarevitch, was hemophiliac. It is said that the bleeding strain entered the royal families of Europe from the Hapsburgs, the ancient imperial family of Austria, and the disease has been called the "curse of the Hapsburgs."

Science has searched in vain for some simple method of determining whether or not a woman is a carrier of the ailment and is capable of passing it on to her sons. The only way to distinguish between those who carry and those who do not carry the hereditary strain is the practically useless method of waiting until sons and grandsons have been produced. Two tests, one of blood type and

the other a reaction with cobra venom, have been produced, but neither has proved successful.

Experiments by Dr. Carroll La Fleur Birch of the University of Illinois College of Medicine hold out hope that injections of one of the female sex hormones may be useful in treating the disease. Working on the theory that there must be some factor in the woman which suppresses the disease when it is present in her hereditary make-up, Dr. Birch hit upon ovarian extract as the probable element in the female mechanism that held the disease in abeyance. He therefore tried this substance in treating two boy "bleeders" with encouraging results. Other physicians did not have the same success but the experiments are in progress.

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PHYSICS

## New X-Ray Method Makes Quick Analyses Possible

**B**Y HOLDING a piece of metal up to a beam of X-rays it is now possible to tell quickly what are its chemical constituents. This is the seemingly magical method of analyzing metallic substances announced by Dr. L. V. Hamos of Stockholm.

The Swedish investigator has already built himself metallic "sandwiches" consisting of paper-like strips of metal piled one on top of the other. By shining X-rays at the laminated edge of the metal "sandwich" Dr. Hamos has been able to tell what kind of metal was used for each layer. In some cases the edge of the metal strips was only 1/250 of an inch thick.

Reporting his new method of chemical analysis to *Nature*, Dr. Hamos explains that when the initial beam of X-rays (all of the same wavelength) strikes the laminated edge it produces secondary X-rays, which come off from each of the various kinds of metal illuminated by the primary beam. These secondary X-rays are characteristic for