



**ALL-AMERICA WINNER**—A head of Salad Bowl lettuce and some possible ingredients for making a tossed salad show an All-America vegetable winner for 1952.

## AGRICULTURE

## New Garden Lettuce and Bush Snapbean Developed

► A NEW leaf lettuce called "Salad Bowl," developed by the U. S. Department of Agriculture, is the first lettuce ever to win the All-America Selections' gold medal. The loose-leaf lettuce, heat-resisting and long-lasting, this summer will flourish in many home gardens.

An outstanding all-purpose bush snapbean called "Wade," another Agriculture Department development, won the other coveted gold medal for 1952. The pods are straight and round, stringless, fiberless and of high quality.

Almost everybody with a garden will want to plant the new lettuce and snapbean. Seeds of both these vegetables and other All-America Selections for 1952 are now available from seed dealers.

A heavy-bearing, heat-resisting spinach from Holland, named "America," was granted a silver medal. Other silver medal winner was a Cushaw pumpkin called "Allneck," an elongated, large and almost solid fleshed vegetable.

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## ASTRONOMY

## One Instrument Records Three Things About Stars

► AN INSTRUMENT has now been designed to record simultaneously the brightness and color of a star, and at the same time to show whether the star's light is polarized (vibrates more in one plane than another).

Two photomultipliers, three amplifiers and three recording systems are used in the new instrument, Dr. John S. Hall of the U. S. Naval Observatory told members of the American Astronomical Society meeting in Cleveland.

When a nicol prism or a piece of polaroid is used to discover whether a star is polarized, half of the light entering the apparatus is completely lost. It is this light which Dr. Hall utilizes to measure concurrently the color and magnitude of a star and to determine its spectral type.

A rotating cylinder of calcite separates the star's light into two equally bright beams. One beam from the calcite cylinder is used to determine both the plane of polarization and its amount. The other beam of light is passed through a rotating disk containing violet, blue and green filters which make it possible at once to measure both the color and brightness of the star.

Observations of 50 stars with this instrument have shown that reliable measures of polarization, magnitude and color can readily be obtained for stars of the tenth magnitude and brighter, Dr. Hall reported.

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## GENETICS

## Old Age Hereditary Habit

**Infirmities of old age may be hereditary habit picked up in course of man's evolution. Pattern that comes out automatically with advancing years called "genetic copying."**

► THE INFIRMITIES of old age may be just a bad hereditary habit that the higher animals, including man, have picked up in the course of their evolution. This is the theory of Prof. P. B. Medawar, F.R.S., who has just been inaugurated as head of the London University zoology department.

These infirmities are a hereditary habit, in the sense that originally they may have been the results of fair wear and tear on each individual. But their constant repetition in the course of evolution has fixed them so firmly in the hereditary pattern that today they come out automatically with advancing years. Prof. Medawar calls it "genetic copying."

Prof. Medawar realizes that his theory smacks of the now spurned pre-Darwinian evolutionary theory of Lamarck, but sees evidence in support of his suggestion in the lines of the hands and the skin on the soles of the feet.

The main lines of the hands—heart, head, life and fate lines to the palm-reader—

originally arose as use creases, worn into the hands of each individual in the course of a lifetime of handshutting. In the process of evolution these lines have become a habit of heredity and now appear in the palms of the newborn infant, which has not yet used its hands.

The same is true of the thickened skin on the soles of the feet, now genetically copied in each newborn babe, possibly because thousands of generations of its forebears developed tough soles by walking on them.

Where old age is concerned, Prof. Medawar suggests that in the distant past the feebleness of old age may have come about entirely from the knocking about the individual got from accidents and illnesses. As evolution progressed this feebleness was copied into our racial heredity so that today we are born to become feeble, and we ache and ail as we grow old largely from force of genetic habit.

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