

BOTANY

First Plant Patent Granted Protects Everblooming Rose

THE FIRST plant patent has been granted.

The protection of the new U. S. patent law was extended a plant breeder for the first time when Henry F. Bosenberg of New Brunswick, N. J., was issued U. S. Plant Patent No. 1 covering "a climbing or trailing rose," the patentable feature of which is its everblooming character.

The everblooming rose, called the New Dawn, was found as a freak of nature among a group of Van Fleet roses purchased by Mr. Bosenberg for use in landscape work.

"The plant was observed closely for two seasons before any attempt was made to propagate it," Mr. Bosenberg says, "and when plants propagated from it by budding or grafting bloomed the very first year and continued to bloom, and plants which in turn were budded from these young plants also continued to bloom, it was felt that the sport was fixed and that there would be little or no danger of its reverting to the original Van Fleet. The rose has been propagated for the past four years and among the thousands of plants observed we have not seen any tendency to revert back to the old type of rose which bloomed only once a year."

Mr. Bosenberg is of a family of plant growers. His father, who recently became an American citizen at the age of 72, was at one time a prominent cyclamen grower of Germany.

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Pink-Fleshed Lemon Developed in California

PINK LEMONADE, colorful memory of childhood circus days, may be the next thing of that gay period to stage a comeback. And this time it will have authentic pink lemon slices to float in it, a trimming which it lacked in the old days. At the Riverside experiment station of the U. S. Bureau of Plant Industry a lemon has developed a "bud sport" which produces fruit with bright pink flesh.

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California has 28,000 acres of commercial olive orchards.

The plant patent law has been the subject of much difference of opinion among the scientists of the U. S. Department of Agriculture, which has to act as expert judge of plant patent applications. Some hold that the law will never be workable and that it is useless to try it. Others believe that it may be workable and should be tried, because if it does turn out to be satisfactory it will bring reward to a deserving group of men and will stimulate the development of new plants.

This first patent may test the practicability of the law. It is understood that about 50 applications are now pending.

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PHYSICS

Sky's Blue Believed Caused By Electron Streams From Sun

ELECTRONS streaming from the sun may be the cause of our familiar but mysterious blue sky, Dr. Willi M. Cohn of the University of Berlin has concluded as the result of his experiments in which a blue light very similar to that from the sky was produced in the laboratory. Dr. Cohn is doing high temperature research at the A. D. Little laboratories.

Dr. Cohn experimented in Berlin with cathode rays in a high vacuum, formed in a tube similar to the X-ray tube. He allowed the stream of electrons, which is the cathode ray, to meet larger electrically charged particles of matter, known as ions, which are formed either from a piece of radioactive metal, such as thorium, or from a gas. The blue light appeared where the electrons and the ions came together.

This blue light can be broken up by prisms to form a spectrum or "rainbow" of continuous color, just as is found in sunlight. The blue light from the clear sky also shows a continuous spectrum, although gases, such as the air this light passes through, have quite different spectra, which show only thin col-



PROTECTED

Henry F. Bosenberg, to whom the first plant patent was granted, and his rose, the New Dawn.

ored lines. Dr. Cohn points out that at the upper layers of our atmosphere electrons continually arriving from the sun and ions of the gases which form our air meet in the intense vacuum of space. Since under such conditions in his laboratory the blue light which is so like the light from the blue sky is formed, he believes that the blue of the heavens may, at least partially, have the same cause as that of the laboratory.

Since the time of Newton scientists have speculated on why the sky is blue. The most successful explanation heretofore has been that of Sir John Tyndall and Lord Rayleigh which considers it due to sunlight broken up in a particular way by spherical particles in the atmosphere. Dr. Cohn states that his theory does not conflict so far as direct sunlight is concerned. He points out that the Tyndall-Rayleigh theory would expect the light from the sky to be polarized so that its waves would vibrate in a particular way. The light produced by Dr. Cohn in the laboratory is not polarized, and daylight is only partly polarized, partly not.

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