



Poison Ivy

**A**MERICA has a monopoly on many things that give us a right to be proud. But in poison ivy we have a hundred-per-cent. American product that we have no call to boast about at all. This troublesome weed with the poisonous leaves is found in one form or another, over the greater part of the country, and many and ill are the consequences to those luckless susceptibles who run afoul of it.

"Leaflets three—let it be!" That was the botanical identification and the warning our grandparents knew. And the word is still good. The leaves of the poison ivy are quite distinctive among other vines and low shrubs, in their division into three broad parts.

The poisonous principle of the poison ivy is a heavy, non-volatile, oily substance, chemically related to phenol, or carbolic acid. It can be picked up only on contact, and does not "fly with the wind" as at one time supposed. But the slightest contact will suffice for those sufficiently sensitive to poison ivy, which probably accounts for the widespread notion of its powers to harm at a distance.

Hundreds of remedies have been proposed for ivy poisoning, but the U. S. Department of Agriculture has settled down to two or three that work practically every time. One of these is a five per cent. solution of potassium permanganate, washed on the sore places with a little cotton or a soft cloth. This makes a brown stain on the skin, which may be removed with a one per cent. solution of oxalic acid.

The U. S. Department of Agriculture has a bulletin on poison ivy, which it will send free of charge to any one asking for it. It is listed as Farmers' Bulletin 1166-F.

*Science News Letter, June 11, 1932*

## CHEMISTRY

## Research at Work to Restore Usefulness of King Corn

**I**N THE MIDDLE-WESTERN states where corn is king a movement is under way to restore to higher estate this most voluminous and valuable of all agricultural crops. It is not a farmer's rebellion but a chemical attack, aimed at discovering new ways of using the two and a half billion bushels of corn that grow on American soil annually.

Large varieties of starches, sugars, oils and other products flow out of the corn kernel into industry and homes. The farm is still the largest factory in the world, manufacturing pork, beef, dairy products, poultry and eggs out of corn.

But the demand for the products of corn has fallen off. The average American eats 11 pounds less meat each year than he did thirty years ago. We like leaner meat and stockyards do not want fat hogs. Lean hogs eat less corn. Lard's market has been usurped by vegetable oils, and even corn oil competes with the fat of pigs fed on corn. Prohibition

stopped the legal making of whiskey from corn.

Corn refineries manufacture each year nearly a billion pounds of corn sugar, over a billion pounds of corn syrup, more than a hundred million pounds of dextrin and 800 million pounds of corn starch. Makers of textiles, paper, adhesives and other things use corn starch while housewives starch collars and make corn starch pudding.

The industry of corn refining uses 75 million bushels of corn, each containing 30 pounds of starch. Dr. H. E. Barnard, chemist and director of the newly created Corn Industries Research Foundation, sees starch as perhaps the most important of all the basic materials used by the chemist. And he calls it the most unknown substance in the world.

If chemists studied starch as assiduously as they have coal tar, the problem of too much corn at too low a price might be solved through the discovery of new uses.

*Science News Letter, June 11, 1932*

## MEDICINE

## Examinations of Blood Cells Show Progress of Tuberculosis

**D**ETERMINATION of the total number of each of certain kinds of cells present in the blood of tuberculous patients is as important as X-ray findings and general signs and symptoms for telling whether the patient is getting better or worse, it appears from a discussion before the National Tuberculosis Association at its recent meeting in Colorado Springs.

Evidence that the disease is spreading in the body is often first shown by the blood count, it was stated. The X-ray shows the spreading second, and the symptoms show it last. The significant changes are sufficiently definite to be detected in ordinary examination of the blood by any well trained technician or physician.

For watching the progress of the dis-

ease in this way, it is the white blood cells that are important. There are several kinds of these cells which include the scavenger cells and the cells that help the body resist infection. From careful examination of the blood and of the general changes in the body, these investigators have found that one kind of white cell is more numerous at one stage of the disease and another kind at another stage. Since they also know whether these stages represent improvement or the reverse, they have been able to correlate the count of the blood cells with the progress of the disease. While the blood count is as important as the X-ray and the clinical symptoms in determining the progress of the disease, it is held to be no more important.

*Science News Letter, June 11, 1932*