

## MEDICINE

**Detect Breast Cancer Earlier by Cell Study**

► DETECTION OF breast cancer in an early stage before it has invaded other tissue and before any mass or lump can be felt is now possible.

It can be done by microscopic examination of breast secretions to detect cancer cells.

This use of the famous "Papa" test was reported by its originator, Dr. George N. Papanicolaou of Cornell University Medical College, New York, at a cancer cell conference at the New York Academy of Sciences.

The test was originally devised to detect cancer of the uterus from secretions obtained at the opening of the reproductive tract in women. It depends on the fact that cancers, even in very early stages, shed cells as a tree sheds leaves.

The test is now being used to detect cancers of stomach and lungs by finding the cells in material sucked or washed out of these places. Improved methods of collecting the material from stomach and lungs for the "Papa" test was reported by other scientists at the conference.

Usefulness of the test for early detection of breast cancer and diagnoses of other breast diseases was determined by examination of over 1,600 women from New York Hospital and Memorial Center, and referred by private physicians.

In some women, there was spontaneous nipple discharge. In others, fluid was obtained by gentle massage during breast examination or by use of a hand breast pump.

A number of cell patterns were found, corresponding to such conditions as chronic cystic mastitis (breast inflammation), acute mastitis, papilloma tumors within the ducts in the breast, and cancers.

In several cases a cell pattern showed cancer before any mass had developed in the breast. In a number of cases with symptoms of breast trouble, the primary diagnosis was first established by examination of the cells from the breast secretions.

Associated with Dr. Papanicolaou in this study were Drs. Genevieve M. Bader, Doris G. Holmquist and Emil A. Falk.

Science News Letter, June 11, 1955

**YOUR HAIR****Its Health, Beauty and Growth**

By Herman Goodman, M.D.

A medical specialist tells you what to do to save and beautify your hair, stimulate healthier hair growth, and deal with many problems, as: Dandruff—gray hair—thinning hair—care of the scalp—baldness—abnormal types of hair—excessive oiliness—brittle dryness—hair falling out—infection—parasites—hair hygiene—glands—diet—coloring—and myriad other subjects concerning hair.

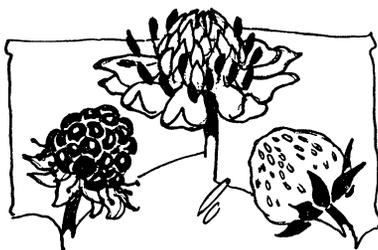
"Discusses the many problems of hair retention, regrowth and removal."—Science News Letter.

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**Kinsfruit**

► THERE IS a lot of easily-done botany in a mixed basket of fruit or berries. One can get considerable amusement determining the relationship, or lack of it, by picking them to bits—not neglecting to eat the specimens after the scientific exercise has been finished, of course.

The kinship between apples, pears and quinces is quite obvious, or that between oranges, lemons, limes and grapefruit. But it may take a little more ingenuity to show that cherries, blackberries, raspberries, strawberries and the dry "seeds" that follow such flowers as agrimony are all cousins.

Let us start with the cherry and the raspberry. Pick the raspberry into the small pieces naturally marked off in its flesh. Cut or bite into one of these pulpy fragments, and you find a single hard little seed. The raspberry is a tight-packed cluster of tiny "cherries."

Between raspberry and blackberry the likeness is more obvious. A blackberry is solid in the center where the raspberry is hollow, that is all. The solid edible center of the blackberry is the same thing, essentially, as the tough little stem-end that remained on the bush when the raspberry was plucked. The blackberry therefore is a coating of tiny "cherries" over a pulpy and soft stem-end.

Now imagine the same pulpy stem-end greatly increased in size, while the "cherries" on its outside have shrunk and shriveled until nothing but their pits remain, with a papery skin drawn tight over them. That is the strawberry. The strawberry is all edible stem-end, as the raspberry is all outside fruit.

Finally, consider the possibility of the "cherries" being like those of the strawberry and the stem-end being like that of the raspberry. Here would be a fruit all dry and hard, not edible at all. Such is the fruit of the agrimony flower.

Science News Letter, June 11, 1955

Total production of *poultry meat* in the United States has more than doubled since 1935-39.

## SOCIOLOGY

**Average Family Income \$6,600 in Year 2000**

► BY THE year 2000, the average family income will be \$6,600, according to Prof. William F. Ogburn, visiting professor of sociology at Purdue University, Lafayette, Ind.

Prof. Ogburn, who showed the standard of living in the United States was twice as high at mid-century than in 1900, has analyzed the probable effects of a continuation of this trend.

First of all, the standard of living will continue to rise. He bases this prediction on the fact that it has risen steadily since 1900, and only rarely does such a trend line change its course radically. The rate of increase may lessen, Prof. Ogburn says, but the trend will most probably continue.

Poverty will be reduced.

Health will improve.

A larger market for mass-produced goods will be created.

The expenditures of lower income groups will be at the level of today's middle income groups.

More money from each family budget will go for luxuries.

The declining appeal of socialism will dwindle away to nearly nothing under those circumstances, Prof. Ogburn predicted, based on the fact that the socialist vote in America has decreased as the living standard has increased.

Science News Letter, June 11, 1955

## MEDICINE

**Yellow Germ Disease Mimics Tuberculosis**

► A "YELLOW" bacillus has caused a disease resembling tuberculosis in 17 patients, Drs. Lawrence E. Wood and Ann Pollack of the University of Kansas School of Medicine, Kansas City, Kans., and Dr. Victor B. Buhler of Kansas City, Mo., reported at the meeting of the National Tuberculosis Association in Milwaukee.

The new bacillus, or germ, gets its name because, when grown on artificial medium in the laboratory, its color varies from cream to yellow with a leaning toward orange.

The patients attacked by it ranged from a one-month-old baby boy to 65-year-old men and women. Five of the patients have died of the disease and a sixth is dead, although the cause of death is uncertain. Five no longer have symptoms and another has no X-ray or bacteriological sign of the disease, although still complaining of cough and being tired.

"Superficially," they said, "it appears that this disease has a gloomy prognosis. It must be remembered, however, that many of these cases came to our attention because of their severe course, so that the experience reported cannot give any accurate idea of the ultimate prognosis."

Science News Letter, June 11, 1955