



**COMPACT CHICKENS**—One of these hens is the mother of Little Innocent. These Wyandotte Bantams make excellent laboratory animals because of their small space and food requirements.

imals are reared at present are hermetically sealed horizontal metal cylinders about the size of a popular washing machine, with germ-tight locks for the introduction and removal of the experimental animals. Windows for observation are gasketed into the wall, and long rubber gloves, similarly gasketed in, permit the operator to reach in and handle the animals without breaking the germ-tight seal. An elaborate network of pipes supplies sterile water, filtered air, and steam for resterilization of the cages between uses.

The new setup, now being prepared for larger-scale production of germ-free animals, is much more spacious, and will permit greater freedom of action on the part of the experimenter.

Nevertheless, space will always be at a premium, so the bacteriologists prefer to use small animals when there is no compelling reason for larger ones. Rats and guinea pigs are chosen rather than rabbits and monkeys.

For the same reason, Prof. Reyniers looked about for vest-pocket-size chickens when he decided to try for second-generation germ-free chicks. Bantams of the White Wyandotte breed proved to be an excellent choice. They not only require much less space than full-sized fowl, but they can live on much smaller portions of the semi-synthetic diet used in the experiments. It is expected that these feathered midgets will be widely adopted as experimental animals.

Science News Letter, November 6, 1948

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MEDICINE

## Eating May Heat Up Face

► EVERY TIME the patient ate, the left side of his face felt warm and sweat poured off it. The strange, one-sided reaction was brought on by eating any food, especially apples. This had been going on for 25 years.

This patient and two others with the same condition were studied by Drs. A. S. Freedberg, Robert S. Shaw and M. J. McManus of Harvard Medical School and Beth Israel Hospital in Boston.

Some patients with this condition get red on one side of the face as well as feeling

hot and sweating on that side. Auriculotemporal syndrome is the medical name for the condition.

In the Boston patients, the reaction started in ten to 15 seconds after starting to eat an apple and while still chewing. In one of them, the same reaction was started by chewing a lemon or even paraffin.

Somewhat over 90 cases of this condition have been reported in medical literature and the Boston doctors point out that the condition is not rare and is repeatedly seen in clinics observing patients after



## Do You Know?

A little-known but increasingly important source of table oil is *okra seed*.

Average *potatoes* of today's favorite varieties contain about 15% starch.

*Raw foods* are good for the teeth because they help clean their surfaces.

Better *sizing*, or surface glaze, of paper results from the use of a new chemical called sodium phospho-aluminate.

*Television* will be available before the end of the year to the areas where half the people of the United States are living.

Some Maine *sardine canners* are using sunflower oil instead of olive oil because of the better taste.

An important advantage in the use of *magnesium piping* for transferring gasoline is that it will not strike a spark as ferrous metal will.

More than 30,000,000 pounds of *animal livers* are used annually for the production of medicines for the relief of anemia and other diseases.

One reason why *natural gas* is a preferred fuel in steel furnaces is that it contains almost no objectionable constituents and leaves no wastes or residues.

*Eggs* of fish and other eggs laid in the sea must be produced in enormous numbers if enough are to survive; one oyster sheds around 30,000,000 eggs in a single season.

A giant sound horn is to be tested at an airport to clear away *fogs*; sound waves will jar the fog particles into rain drops, it is expected.

Quartz tube lamps, filled with the rare gas *krypton*, emit beams that will pierce heavy fog for a thousand feet; they are used on the approach lighting system of the new Idlewild airport on Long Island.

operation on the parotid gland.

Mumps or other infection of the parotid gland as well as operation on it may start the condition. The one-sided sweating while eating is noticed within a few days to three years after the original gland involvement and lasts the rest of the patient's life.

Most likely explanation, the Boston scientists believe, is that the facial sweat glands in contrast to the rest of the body have two

sources of nerve supply. When one is injured the other may become active and indeed overactive.

Relief of severe sweating and flushing may be obtained, the Boston scientists suggest, by alcohol injection or surgical cutting of the auriculotemporal nerve. Details of their studies leading to this suggestion appeared in the JOURNAL OF CLINICAL INVESTIGATION (Sept.).

Science News Letter, November 6, 1948

### MEDICINE

## Siamese Twins Studied

► MARY and Margaret, Siamese twins who have furnished entertainment to circus goers, are now giving doctors new light on the cause of high blood pressure.

At the age of 34 Margaret developed high blood pressure, grade 2. Mary had normal blood pressure at rest, although it was unstable and went up at times, though never as high as Margaret's. Detailed studies of these unique sisters are reported by Drs. Stewart H. Jones, Omar Z. Young-husband and James A. Evans, of the Lahey Clinic in Boston, in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Oct. 30).

The twins are joined at the hips. Their spinal canals communicate. Discovery of this when they were three years old led doctors at that time to decide against trying to separate them by an operation.

The question of separating them now was settled by the twins themselves who flatly refused even to consider it. They feel such a separation would be like having an arm or leg cut off. And the surgeons and orthopedic specialists who examined them at the age of 34 agreed that such an operation was not feasible.

Tests with injections of dyes showed that their blood vessel systems communicate but the degree of exchange of blood in their veins was not determined exactly. It appeared to be moderate.

Mary's slight and Margaret's more severe

high blood pressure could be hereditary, since their mother has high blood pressure. Or it may be a result of chronic kidney infection, since Margaret has kidney stones and a past history of kidney infection. A blood-pressure-raising substance from Margaret's diseased kidneys might travel via the blood communication to Mary and raise her blood pressure slightly.

Margaret is a thin, high-strung, nervous type of person, while Mary is stout, calm and placid. Their intelligence quotients are the same but personality tests showed Margaret tending more toward the neurotic than Mary. Margaret's more exaggerated response to a test for blood vessel tone suggests that chronic anxiety and nervous tension probably play more of a part in causing her high blood pressure while in Mary the hereditary and blood chemical factors probably predominate.

Female sex hormones and temperature-raising substances in fevers associated with infections also travel via the blood stream, studies of the twins showed.

Emotional states apparently are not spread by way of the circulation.

Siamese twins, the doctors conclude from their studies of Mary and Margaret, probably develop from two separate ova and not, as frequently supposed, from a single ovum, or egg cell.

Science News Letter, November 6, 1948

### MEDICINE

## Irritation from Smoking

► THE THROAT irritation caused by smoking cigarettes cannot be told from the irritation caused by various bacteria, chemicals and heat, the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Oct. 30) states in an editorial.

"It would be a wise physician indeed who could differentiate" between the two, is the way the journal puts it.

Cigarette advertising on the basis that the product advertised does not irritate the throat is "approaching a point where the advertising is no longer significant," the journal states.

Besides the impossibility of telling wheth-

er the throat irritation is due to cigarettes or to something else, the methods for measuring throat irritation are not standardized.

"Further truly scientific studies and respect for intelligent advertising," the journal says, would do away with the need for more trials before the Federal Trade Commission to determine whether cigarette advertising claims are justified or not.

The manufacturers of cigarettes are reminded by the journal of the "trend in the promotion of alcoholic liquors and their abuse" which finally led to prohibition. Re-

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