PSYCHIATRY

Mental Hay Fever

A Mother-In-Law May Give Certain Supersensitive Persons Spasms Just As Ragweed May Cause Sneezing

By MARJORIE VAN DE WATER

MAYBE you know someone who can't get along with his mother-in-law. The very mention of her name will start a tirade. If she shows up at his house, he is thrown into a fit of emotion that spoils his whole day.

A new explanation for this mother-in-law trouble is offered to scientists by Dr. Wallace Marshall, a psychiatrist of Appleton, Wisc. He says that it is a kind of "hay fever" of the mind.

"Mental hay fever" has nothing to do with the pestiferous ragweed that throws the unfortunate into paroxysms of sneezing when they breathe its fine pollen. But a mother-in-law can irritate the mind of certain especially sensitive persons in a way closely parallel to the manner that certain pollens irritate the breathing tracts of others, Dr. Marshall says.

He traced the parallel in a report to the American Journal of Psychiatry where he introduced it to his fellow scientists as a long-sought link between the mind and the body—between biology and abnormal psychology.

In the case of hay fever itself, bombardment by pollen will sensitize the victim so that thereafter the least whiff of that pollen will start a fit of sneezing. In a comparable way, Dr. Marshall explains, overexposure to an irritative mother-in-law may make a person supersensitive to irritation from that source. Thereafter even a slight reminder of her is enough to bring on a fit of rage.

One Cause

In both cases, it may be just the one irritant that causes all the trouble. The father-in-law, for example, may not precipitate any violence any more than daisies cause hay fever.

The hay fever victim can be relieved of his symptoms by a process of desensitizing. He is given gradually increasing doses of the pollen in the form of injections until he is taking it in such large amounts that he is rendered immune to the ordinary irritation of pollen-laden air.

Similarly, the son-in-law can desensitize himself in regard to the mother-in-law, Dr. Marshall encourages. Or he can gain "immunity" through the service of the physician dealing with nervous diseases.

With body and mind alike it is not just the one single irritant that may cause trouble. Although it may be only one that affects any one person, a great variety of irritants claim their own individual victims. Plant pollens are the most familiar of these irritants to the body—allergies as they are known to the physician. But some persons are sensitive to certain foods such as shell fish, eggs, strawberries, and even wheat and spinach. These persons have intestinal upsets or hives whenever they eat the offending food.

Heat and Cold

Other persons are allergic to heat or to cold. Some can't stand the touch of fur. Others are bothered by fresh paint. Face powder will make some individuals positively ill. The goo put on hair to make it slick or to set waves is poison to a few persons.

So it is too with the "psycho-allergies" as Dr. Marshall calls such special irritations in the field of the mind. The mother-in-law is only an all too familiar example of a very numerous group. Each person probably has built up his own peculiar set of "psycho-allergens" which cause him fits of mental hay fever. Here are a few cited by Dr. Marshall.

The stutterer. "The respiratory embarrassment which the stutterer suffers is a psycho-allergic reaction which may have inferiority as its basis," he says.

The drunkard. "The dypsomaniac," says Dr. Marshall, "seeks a flight from reality in liquor. He does not drink for the sport of drinking; he imbibes because he needs a retreat from the definite psychoallergens to which he has developed a state of hypersensitivity."

The criminal who loses his nerve. A killer who disposes of those in his way without the slightest sign of an emotion may develop a sensitive period and lose his nerve completely, Dr. Marshall indicated.

The person who faints at the sight of blood. Such fainting can be traced to a specific emotional upset caused by a specific psychoallergen.

You will undoubtedly think of other similar examples, from your own experience, of "mental hay fever." You may have seen a man fly into a rage whenever a certain subject was mentioned. The rage seems completely inexplicable unless you know the background for it. If you happen to know that vacations are a perennial subject for wrangling between that man and his wife you would understand why he turns purple when some stranger asks where he spent the summer. Or, if you knew that he once lost a small son by drowning, you would realize why the mention of boating might make him turn pale.

The physician dealing with mental ills can discover his patient's psychoallergens with the word association test—the same one that is sometimes used with the "lie-detector" to trap a person suspected of crime, Dr. Marshall indicated. In this test, the physician speaks a word and the patient quickly answers with the first word that pops into his mind. Thus, if he says "hot" you might answer "August" or "stove" or perhaps even "cold." Among a lot of such unimportant words certain key words are introduced designed to detect the guilt of the suspect or the psychoallergens of the patients. The word "blood," for example, may cause a person if he is emotionally affected by that word, to delay his answer and make the "lie detector" record a tell-tale change in the electric potential of his skin. Only certain words will make the subject produce the betraying record. He is upset by them because he has previously become sensitized to those particular words. They have become for him psychoallergens, Dr. Marshall explains.

Partly Heredity

Why do persons develop these psychoallergies? Or, why do persons have the physical allergies, for that matter? Those are questions for which physicians and other scientists are still seeking satisfactory answers. It seems to be partly a matter of heredity—we appear to get from our parents either a tendency to be hypersensitive or to be immune. And it is partly a matter of exposure. Such

sensitivities seldom develop toward irritants that are rarely encountered.

In England, it is said that hay fever patients are more likely to be sensitive to the pollen of grasses than to that of ragweed. In the United States, ragweed is the chief offender. Ragweed is rare in England, an extremely common plant in the United States.

So, presumably, it is with the psychoallergens. It is the poor fellow who lives with the wife's mother who is most likely to develop "mother-in-law fever."

Abnormal Susceptibility

Allergy is simply a condition of abnormal susceptibility to something which is perfectly harmless to another person. The old adage that "What is one man's meat is another man's poison" applies admirably here. The allergic person is that other man. How does he "get that way?" Well, that is a long story and is tied up with a related question concerning the development of immunity.

If a living cell is injured, the result is either repair of the damage or death of the cell. But that is not the whole story, Dr. Marshall points out. If the repair process once starts properly, Nature does not lie down on the job. She not only repairs the damage, but produces much more of the repair material than is needed. The surplus repair parts are discharged into the blood stream. These are called antibodies. They give the body protection against later infection by the same injurious substance.

Thus the final step in this process is protection or immunity. But a preliminary stage, before the antibodies are produced, is one in which the body has an increased susceptibility to the virus.

Decreased resistance to infections or allergens also has been noted following excessive strain and chilling. Likewise, emotional upsets have a tendency to weaken the resistance of the body, Dr. Marshall points out.

Linked With Emotions

The connection between the emotions and the allergies is interesting in connection with Dr. Marshall's theory of psycho-allergies.

In the first place, the allergies affect generally the breathing apparatus as in hay fever or asthma, the digestive apparatus as in nausea or sick headache, or the skin as in hives. These are matters controlled by the involuntary nervous system. And in turn, they are controlled by the endocrine glands and the emotions.

The involuntary nervous system includes what is known as the vagus system of nerves which control the contraction of the involuntary muscles. The person with asthma suffers because the smooth muscle surrounding the bronchial tubes contracts and interferes with breathing. The person with hives has an outpouring of serum from the minute blood vessels of the skin. The person with sick headache has "hives of the brain" or a spasm in the blood vessels there.

Emotion can bring on an attack of asthma in an asthmatic person. Even in others it can produce that "heart in the throat" feeling which interferes with correct breathing. That emotion can produce headache is well known to most persons. It is by upsetting the working of the glands and involuntary nervous system that it can produce these and other allergic symptoms.

In the Psycho-Allergic

And, just as the emotions play their part in the physical upsets of the allergic person, so the body's mechanisms are disturbed by the emotional upsets of the psycho-allergic person. Ulcers in the stomach, contractions of the intestinal apparatus, high blood pressure—these are a few of the physical disturbances believed to have their origin, or at least their aggravation, in emotional upsets.

Emotion changes the blood pressure, interferes with digestion, disturbs the heart action and causes marked changes in the action of the endocrine glands.

Psycho-allergy really seems like just another face of the familiar coin of physical allergy.

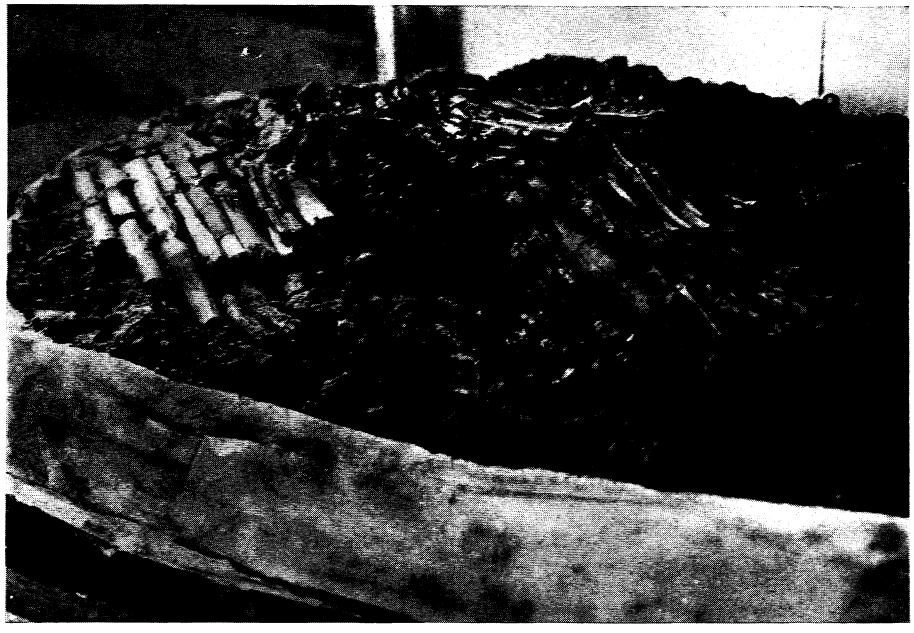
Modus Operandi

"How does an individual become hypersensitive?" asks Dr. Marshall, and then proceeds to answer.

"It seems that the modus operandi is the same in psycho-allergy as it is in the field of allergy. A person may be immune congenitally to certain psychoallergens; furthermore, he may be able to desensitize himself to them, which is another way of stating that he effects a sublimation or compensation according to the concepts of Freud.

"Thus, an individual may become hypersensitive to a particular subject which acts specifically as a psychoallergen upon that individual; likewise, he may undergo desensitization by himself by means of the above mentioned processes, or he may be desensitized through the method of psychoanalysis."

The newborn baby whose emotions have never been excited is not psychoallergic, Dr. Marshall continues. But if he is subjected to some sort of emotion arousing situation, then he may grow into a state of hypersensitivity. This is like that period of hypersus-



PREHISTORIC CORN CRIB

Part of the huge hoard of Indian corn unearthed under the floor of an Indian dwelling at Wickliffe, Kentucky (SNL June 12, page 377). Robert McCormick Adams, archaeologist who is exploring the site, has found a flint hoe left by the Indian farmers outside the house.

ceptibility that the immunologists describe—that time before the antibodies of protection develop when the organism is particularly susceptible. His emotional system is then defenseless against the onslaughts of the particular situations or objects that are his particular psychic poison.

Similar sensitizing processes occur in every psychic conflict, Dr. Marshall says.

Any agent that is capable of stimulating an organism so that it responds must be thought of as being capable of producing a state of susceptibility in the organism, he concludes. It is just as logical, he argues, to think of an idea or a word or a person or any other psychological agent as capable of producing susceptibility as it is to think of a virus or a pollen as doing so.

Science News Letter, July 24, 1937

PUBLIC HEALTH

No Diphtheria Deaths In Six American Cities

SIX large American cities have the proud record of no deaths from either diphtheria or typhoid fever during the past year.

These honor cities are Cambridge and Somerville, Mass., Syracuse and Utica, N. Y., Duluth, Minn., and Salt Lake City, Utah. Nineteen cities had no deaths from diphtheria during 1936 and 18 had none from typhoid.

The Journal of the American Medical Association announced its annual survey of diphtheria deaths in the 93 cities from which it has obtained death rates for the last 14 years.

Back in 1923, when these surveys began, the average mortality rate from diphtheria was 13.13 per 100,000 population. Today it is 1.51 per 100,000, owing to the preventive programs that have been instituted throughout the country.

In Oklahoma, Texas, and Louisiana, the health picture is not quite so bright as elsewhere. In diphtheria, as in typhoid fever, these states continue to have higher death rates than those of any other section of the country.

Dallas, Tex., with a death rate of 7.3 per 100,000, had the worst record of all large cities. Along with El Paso and Oklahoma City, Dallas reported more diphtheria deaths than during the previous year.

Tulsa, Houston, and New Orleans showed slight decreases in diphtheria death rates. Fort Worth and San Antonio had a very creditable drop in mortality from the disease over the previous year.

The 19 cities that had no diphtheria deaths during 1936 are as follows: Albany, Rochester, Syracuse, and Utica, N. Y.; Cambridge and Somerville, Mass.; New Haven, Conn.; Wilmington, Del.; Elizabeth, Newark, and Trenton, N. J.; Erie, Pa.; Grand Rapids, Mich.; Duluth and St. Paul, Minn.; Kansas City, Mo.; Salt Lake City, Utah; Spokane and Tacoma, Wash.

Science News Letter, July 24, 1937

BOTANY

"Lost Battalion" of Rare Trees Rediscovered in Florida

NEARLY extinct, discovered a half-century ago, lost, now found again. Such is the checkered career of a "lost battalion" of rare trees in northern Florida, reported by Prof. Herman Kurz of the State College for Women to the Florida Academy of Sciences, to be published in the next volume of that body's *Proceedings*.

The trees belong to the genus *Torreya* or *Tumion*, which is a conifer that looks somewhat like a yew. In fact, its full name, *Torreya taxifolia*, means "yew-leaved Torreya." Because of its odorous leaves and wood, it has borne such English names as stinking cedar and polecat wood. It has also been nicknamed gopher wood — possibly an allusion to the reputed material of Noah's Ark! But lately the old folk names have been giving way, partly, to the scientific Latin, so that to scientists and the general public alike it may eventually have the same name.

In earlier geologic times the genus was worldwide in its distribution, but during the Ice Age it was cut down to a few relict patches—one in Florida, larger ones in California, Japan, and China.

The Florida Torreya trees, a distinct species, are found mainly in a small block of land just east of the Appalachicola river in the north part of the state. In the books all the trees are declared to be on the east bank of the river.

However, in 1885 a noted Southern botanist, Dr. A. W. Chapman, found a few trees about half a dozen miles west of the river, and so reported in one of his publications. When so few individuals of a species exist, the discovery of even a dozen new ones is a matter of some importance. But the find was lost sight of, and from then until now apparently has never been mentioned.

A short time ago, one of Prof. Kurz's students, Mrs. Carrie Yon Williams, obtained for her teacher some specimens of the old, forgotten "lost battalion" west of the river. Prof. Kurz has since visited the locality and studied the trees in detail.

There are about 60 of them, ranging in height from 18 inches to 30 feet, scattered over about an acre of ground. Their assorted sizes constitute evidence that the trees are reproducing, an encouraging sign for their survival. Mixed with them are larger trees, mainly magnolias and beeches—a common timber type in northern Florida.

The locality is now known as Dog Pond, near Lake Ocheesee. In Dr. Chapman's time it was more romantically designated as Cypress Lake.

Prof. Kurz, in addition to sending a technical report of the discovery to the Florida Academy of Science, has deposited a specimen of the Torreya in the herbarium of the Florida Agricultural Experiment Station at Gainesville.

Science News Letter, July 24, 1937

ETHNOLOGY

Eskimos Could Write, Frenchman Believes

PERHAPS in future we should speak of the learned Eskimos.

A French scientist has announced that Alaskan Eskimos could read and write. He rates them as equals in culture with the ancient Chinese and Egyptians.

This scientist, Andre Leroi-Gourhan of the Museum of Ethnography of Paris, regards the pictures Eskimos engraved or carved on their belongings as a true system of writing. That is, Eskimos used the pictures as conventional signs by which they recorded their acts and intentions, for others to read.

He suggests that Eskimos began by making pictures of their sign language. The sign for beaver was putting two fingers in the mouth indicating teeth. Eskimos learned to recognize drawings