

MEDICINE—ETHNOLOGY

A Maze of Superstitions

The Age-Old Battle Between Enlightened Medicine and Superstitious "Cures" Is By No Means At an End

By EMILY C. DAVIS

IT MAY seem incredible, but a great many Americans are still using magic to cure illness or to ward off disease.

Oh, of course, no gentleman recovering from a hang-over would rub an amethyst on his aching head. That went out with the Middle Ages.

You probably couldn't find anybody today who would grind up an emerald, even a tiny one, and put the powder into sore eyes to heal them. How could that do any good?

And certainly nobody would think of re-decorating a bedroom in bright red to help a smallpox patient get well. Ridiculous!

And yet—

Thousands of people in America put faith in performances definitely in a class with these medieval cures. In short, we Americans have not escaped entirely from the clutches of that fearsome but fascinating power—superstition.

Just for example:

Carrying a horse chestnut—some people call it a buckeye—in your pocket for rheumatism! There's a bit of typical American magic.

Believing that an unborn child can be marked if its mother has an unpleasant experience. All over the country you can find mothers who worry, needlessly, over that ancient superstition.

Putting a cobweb on a wound to heal it. Dust, germs, and all! That was not so bad in Queen Elizabeth's day, when nobody knew about infection. But despite our widespread knowledge of first aid, the cobweb treatment is still prescribed all too often by some kibitzer when an accident occurs. Not so long ago, it gave a small child lockjaw. To test the cause of the child's death, cobwebs from the same source were applied to guinea pigs. They developed lockjaw, too.

At The Fair

Perhaps you begin to see why folk magic is not a joke in America.

Superstition is so widespread, and so serious in its effects, that the New York World's Fair will include in its Medical Building one vivid exhibit devoted to

showing medical superstitions—and showing them up.

There is to be no advertising in the medical exhibits. The sponsor who makes an exhibit possible receives honorable mention on a placard. In the case of the medical superstition exhibit the Bayer Company is the sponsor.

A maze of superstition! That is what the exhibit will be, leading the visitor through a tangle of ridiculous and serious misbeliefs regarding health and disease. The committee of physicians which planned the exhibit think of the person who relies on magic for his safety from illness as being in his own maze. While he dallies with folklore, hoping to outwit nature's laws, he is losing time and not getting scientific treatment that research has evolved.

In the maze of superstition, fair visitors will be shown for example a wide variety of folk magic practiced by people with rheumatism.

Rheumatism

Rheumatism being a stubborn malady that is not treated by physicians according to a single medical routine, the suf-

ferers from aches and twinges are ready prey for suggestions of friends. It is simple to make a ring out of an old nail and wear it on your finger. Can't do any harm, says the friend. So the rheumatism patient makes a cramp ring, and when his aches take a turn for the better, he is all too eager to give the ring credit. When the aches come back, he tries to believe they are not so bad as before he got his ring. Meanwhile, he probably is not taking any treatment that might help him.

Wherever in America psychologists and doctors and folklore specialists have probed into the medical beliefs of a state or locality, they find a large assortment of rheumatism "cures" of this type.

Prescriptions

Here are a few folk prescriptions, all for rheumatism:

Wear a lead ring.

Wear a silver ring.

Wear a brass ring on your left thumb.

Wear a brass belt.

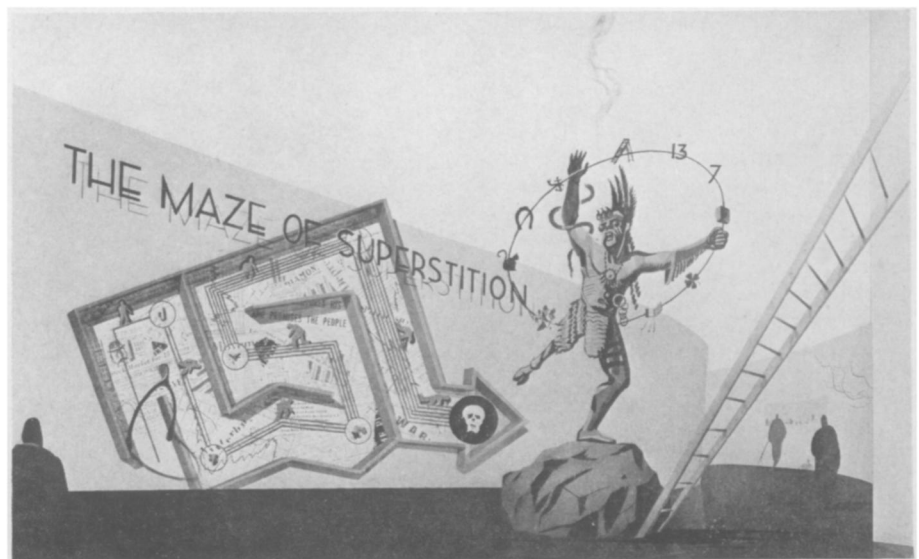
Wear a nutmeg around your neck.

Cross your shoes at night.

Sleep with a dog. When the dog catches your rheumatism, yours will be gone.

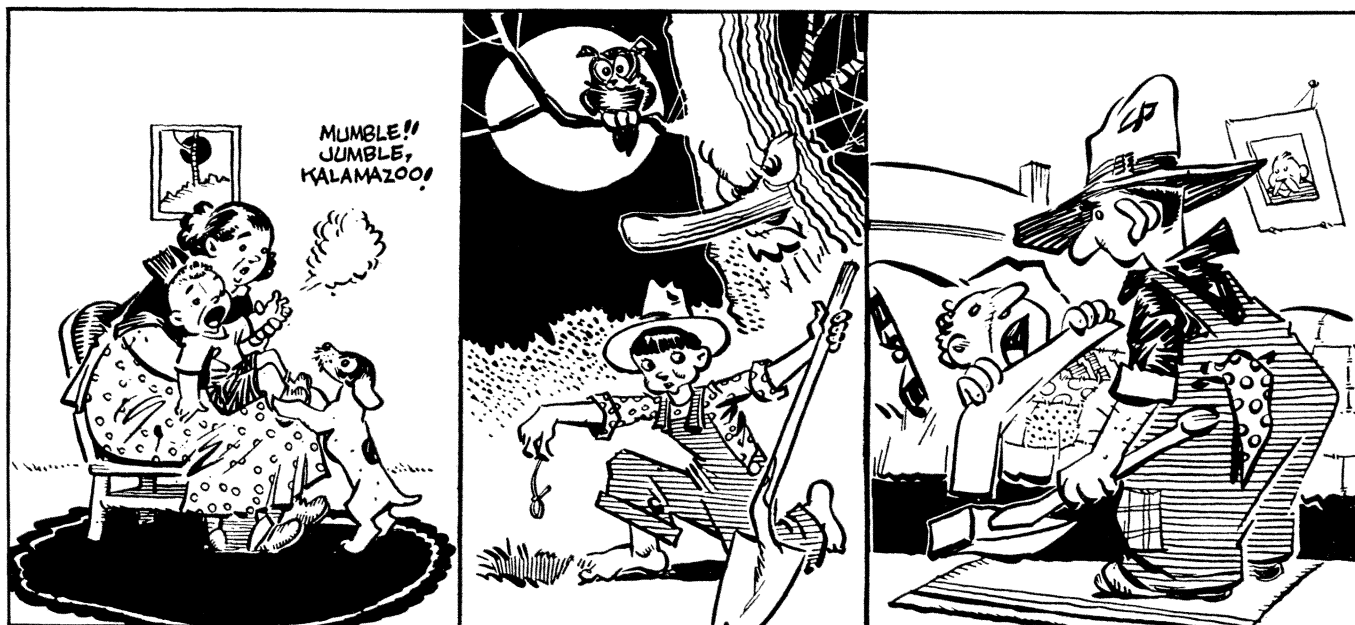
Wear red flannel, and it must be red.

Wear red flannel on your waist.



AT NEW YORK'S WORLD FAIR

The maze of superstitions will show the person relying on magic loses time on the road to recovery. A count will be made of the persons who avoid going under the ladder as they enter.



Carry a potato in your pocket to absorb the disease.

Carry a horse chestnut in your pocket. (Some say it should be begged or stolen.)

Of all these remedies, the buckeye, or American horse chestnut, seems to have the most devotees. To many of the people who carry a buckeye, the idea is no more than a pleasant diversion. The aura of fascination that surrounds all magic is around the small brown object. An American millionaire once sent to a wealthy and rheumatic lady a buckeye for her birthday.

Where Americans got the idea that a buckeye is good for rheumatism is hard to trace. It is possible that the marking of the buckeye, resembling the eye of a buck or stag, gave it value as a charm long ago. Anything resembling an eye has always been thought good in magic.

On the other hand, it is easy to explain why a piece of red flannel—and it must be red—is folk treatment for rheumatic aches. Of all colors in healing magic, red has been the color most favored. Red is the color of life blood, the color of fire—presumably storing warmth, so it was fancied. According to the old and erroneous Doctrine of Signatures, it was supposed that nature kindly indicated by signs curative uses for which plants and gems and colors were intended. By this false doctrine, poultices of red cranberries were supposed to be good for the fiery red rash of erysipelas. A fourteenth century physician wrapped the son of the King of England, Edward the Second, in red cloth when he lay ill of smallpox. And even 450 years later, when the Emperor

of Germany had smallpox he was given the red treatment—and died.

Today in America red is reduced to treating less vital ailments. You can still hear people advising:

“Wear coral to cure nosebleed.”

“To stop your nose from bleeding, tie a red string around your thumb.”

And—returning to rheumatism—red flannel is still supposed to be better than white as a protector. Dr. A. A. Thomen of New York, who has made a study of America’s medical wrong beliefs, writes: “Even in this day of enlightenment a winter never passes without the doctor’s seeing the usual quota of red flannel chest-protectors!”

How treatment of cancer is often delayed, tragically, is another lesson set forth in the maze of superstitions at the New York Fair. What a flood of futile, terribly useless remedies people are actually using against cancer became evident to physicians a few years ago. The American Society for the Control of Cancer had offered a prize of \$50,000 for discovery of a cause of cancer and a cure. When the contest was over, the society had received 1,500 “cures” including such ideas as that eating onions would cure cancer; drinking tea from violet leaves or wearing a poultice of violet leaves would be effective. From these simple suggestions the “cures” ranged to more fantastic remedies calling for turtle oil, adder venom, a live toad bound on the cancer, a drink made of powdered frog.

The exact cause of cancer and a specific cure for all types and stages of cancer are still being sought by physicians

and laboratory workers. Meanwhile, a cancer patient who puts trust in some unorthodox remedy on the ground that so-and-so tried it and survived, is taking a poor gambling risk with his life, as medical science sees it. When treated early by a capable physician, cancer can be checked and often eradicated so that it never returns; but if neglected until it has spread and become general, medical science can do very little.

Superstitions and fallacies are prevalent where people cannot get medical aid. In isolated mountain districts, in marginal farms of the great open spaces, in homes of sharecroppers and poverty-stricken laborers, people often fall back on doctoring advice of those around them. Sometimes the result is common-sense, if not the latest medical science. Other times, the neighborhood advisers are full of traditional lore. They suggest putting an axe under the bed to cut a pain. They blow the fire out of burns, with magic words. They prescribe soot tea for the baby’s colic, and measure a child to make it grow faster.

But cities have their share of old-wives’ lore, too. In a health class, in a high school only a few miles outside of metropolitan New York, a teacher was told by a boy that he knew some one who could blow fire out of burns. And when she probed further, to find out what other archaic ideas lurked in the pupils’ minds back of their lessons on vitamins and sanitation, she discovered a variety of folk beliefs.

Nearly a dozen boys stepped up with magic remedies for warts. You can get rid of warts, the teacher was told, by

tying knots in a string held over the wart and burying the string. Another boy said it was better to spit on the piece of string and put it in your pocket; then when the string rots, the warts drop off. Another boy's remedy in the wart symposium was to take as many beans as you have warts and put them in a bag. Drop the beans along the road, and when some one finds them, he will have your warts.

These are fair samples of literally scores of rites for removing warts. A book on the folk lore of a single county in Illinois includes over a hundred wart remedies, mainly magic.

Smells are still regarded as powerful to ward off disease, by Americans who should know that "germs can't smell." The asafetida bag is not entirely obsolete. An occasional child wears one to keep off disease. The argument that the asafetida bag works by keeping other children—who may have diseases—at a distance is weakened when you reflect that children with colds and some other ailments have temporary loss of their sense of smell.

Camphor is a supposed germ-killer. So are onions. Actually, carrying either one around with you cannot kill germs, nor can eating onions keep germs away.

Dr. H. W. Haggard of Yale, chairman of the committee planning the superstition exhibit, once commented: "Most people secretly believe in the occasional accomplishment of the impossible, and secretly believe that scientists who scoff at their beliefs may be wrong."

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Science News Letter, March 4, 1939

ARCHAEOLOGY

Seven-Foot Statue Shows Pharaoh in Role of Osiris

See Front Cover

SEVEN feet tall, a majestic, high-hatted stone figure of Pharaoh Merenptah of the 13th century B. C. has come to rest in Boston's Museum of Fine Arts. It is pictured on the front cover of this week's SCIENCE NEWS LETTER.

Pronounced excellent of its type—showing an Egyptian king in the role of Osiris, god of the dead—the statue once adorned a temple at Armant on the west bank of the Nile. The statue and a number of others were found where they had been ceremonially "buried" by ancient Egyptians who, at one time, rebuilt the temple.

Science News Letter, March 4, 1939

ASTRONOMY

Hydrogen Is Fuel of Stars And Helium Is the Ash

Professor Russell Describes Process by Which Sun Liberates Its Energy; Empty Space Is Really Filled

HYDROGEN is the fuel and helium is the ash of the stellar engine which produces the vast amounts of energy liberated by the stars and the sun through the ages. Prof. Henry Norris Russell, Princeton astronomer, told a symposium on astrophysics in Philadelphia.

The meeting, sponsored by the American Philosophical Society and the Franklin Institute, summarized current knowledge of stars and the planets.

Speeding bits of hydrogen atoms are now believed to bring about spontaneous disintegration of chemical elements and release vast amounts of energy, Prof. Russell explained.

Crediting Prof. H. A. Bethe of Cornell University with having developed current concepts on the source of stellar energy, Prof. Russell said that as the various elements were broken up they gave off helium as the end product. Thus helium—the light stable gas—is the "ash" of stellar energy production.

From purely mathematical theories on the behavior of atomic nuclei when they are smashed by other atomic particles inside the sun and star, it is possible to explain why many of the lighter elements—lithium, beryllium and boron—appear not to be present in the sun to any great extent. Long since they have been transmuted into helium, giving off radiation.

It is only when carbon in the sun is considered that the destruction of the elements changes. For carbon, explained Prof. Russell, a whole series of transmutations occur which release large amounts of gamma radiation and which end up by recreating the carbon again along with more helium. Carbon, in effect, acts as the catalyst.

The sun will keep on shining for another 10,000,000,000 years, Prof. Russell estimated, and each 100,000,000 years it will grow enough hotter to raise the earth's temperature by one degree Fahrenheit.

Thus if nothing happens to the earth in the meantime it is going to be about 168 degrees on the earth in the year 100,001,938 A.D. instead of 68 degrees average as it is now. These supertropical temperatures would probably melt all the

ice caps at the earth's poles, raise the level of the ocean many feet and have other equally intriguing implications.

Science News Letter, March 4, 1939

"Empty" Space Misnomer

THE NEWEST studies of astronomy show that "empty" interstellar space contains about as much matter as do all the stars and planets. Dr. Theodore Dunham, Jr., Mount Wilson Observatory astronomer, told the symposium on astrophysics in Philadelphia.

Laboriously scientists are tracking down the identification of this cosmic dust for it may have profound implications on the nature of the universe.

The dust may be either the beginning or the end of stellar bodies. Dr. Dunham pointed out. It may have been cast off into space by the stars through the pressure created by their radiation, or it may—in the reverse sense—be the material from which the stars were formed and which they may still be gathering up as they push their way through space.

Using a single bright star known as X₂-Orionis for a beacon light, astronomers have been identifying the chemical elements in the cosmic dust with spectrographs attached to the great 100-inch Mount Wilson telescope. Sodium, two kinds of calcium, potassium and titanium have already been identified from spectrum lines and there are seven other lines which are known but not yet identified.

It turns out, Dr. Dunham said, that between the earth and the star there are probably 89,000,000,000 atoms.

Preponderantly these atoms are those of hydrogen for it is found that in each cubic meter in a path between the earth and X₂-Orionis there are:

Electrons		7,000,000
Hydrogen atoms		7,000,000
Sodium	"	150
Potassium	"	5
Calcium	"	3
Titanium	"	.03

These estimates are for only this single star, Dr. Dunham emphasized. Many more "soundings" of interstellar space will be needed before the figures can be applied to space as a whole.

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