ASK THE SCIENTIST

If you have a question to ask the scientists, mail it to the New York Press Association, The Castle, Syracuse, 10, New York. The Science Board of the Radio Workshop at Syracuse University will answer each week in the Andover News those questions considered most interesting and timely.

Question 1. What is man's worst enemy?"

ANSWER. An oft-quoted statement is that man's worst enemy is man. The greatest and most inexorable enemy of each individual person, the enemy which will eventually finish him off, if he has escaped other enemies, is old age, senility, known to ancient scholars as the summum malum, the greatest ill. So far as the species is concerned, however, eventual death from senility is not an ill at all but a useful function, serving to remove those individuals who have become the worse for wear and making room for the vigorous young.

Other living things are enemies of man. Of these the pathogenic microorganisms, the bacteria, protozoa, and viruses, are unquestionable by far the most serious, in fact they are the only living things which are able to inflict any significant injury on the human race.

Of vertebrates, only the poisonous snakes kill any large number of people. Death from this cause are confined almost entirely to India. In that country there are about 29,000 deaths a year from cobras. Natives go around barelegged and have a religious taboo against killing even poisonous snakes. In other tropical regions there are occasional deaths from snake bites, but not in important numbers. No other large animals kill any significant number of persons.

The most dangerous of all mammals, measured by the number of men killed by them, is not the lion, the tiger, elephant, buffalo, or rhinoceros. It is the domestic bull. Except in rare instances none of these potentially dangerous wild animals will make an unprovoked attack on man.

Hundreds of thousands or even millions of persons are killed each year by microscopic organisms that invade their bodies. Which individual species of these microorganisms is the cause of the most deaths is something that varies from year to year and place to place. Topping the list in this region are the tubercle bacillus and pneumococci. Other great killers are the plague bacillus, the ricketsia of typhus, the virus of yellow fever, the cholert spirellum, and the protozoa of malaria.—Prof. Henry N. Jones, bacteriologist.

Question 2. What is the warmest part of the body?

ANSWER. The liver is said to be the warmest part of the body. — Dr. Verlus Lindeman, zoologist.

Question 3. Why does granulated sugar melted into syrup and left for a time in an old tin container (not rusty) become greenish in color? Is it all right to use? Will sugar sour?

ANSWER. I am rather astonished by this account of syrup turning green in color. If it is true that the pail itself was clean and neither the sugar nor the water in which it was dissolved contained anything to color the syrup, then presumably the color was due to bacteria which grew in it. There are certain bacteria which producewater-soluble green pigments. One of these used to occasionally cause slight infection around the stitches closing surgical wounds, causing what was known as stitch abscesses. Since the pus in these little lesions was green in color, the patient was often greatly alarmed, although actually the infection was not of a dangerous type.

Very similar species are found in water and soil. However, unless this syrup was unusually dilute, I cannot see how these bacteria could have grown in it. To answer the second question—sugar in dilute solutions will either sour, or, more rarely, undergo alcoholic fermentation. If the fermentation is bacterial, acids will be the chief by-products. If yeasts are responsible, ordinary grain alcohol (ethyl to the chemist) will be the chief by-product. But syrups are usually made up in such high concentration that neither bacteria nor yeasts can grow in them.—Prof. Jones,

Question 4. What is water glass.

ANSWER. Water glass is sodium silicate. It is produced when soda ash is melted together with pure sand. This product dissolves in water to form a sirupy liquid. Since it is composed of some of the same materials used in making ordinary glass and it is soluble in water, it is called water glass. If some lime had been added to the mixture before melting, it would have been ordinary glass.—Dr. Aden King, chemist.

(Note:) In a recent issue of this column, due to an error in transcribing, the following sentence appeared: "Aluminum utensils are not as safe as those made of iron." This should have read: "Aluminum utensils are as safe as those made of iron."

Extensionists Warn of Dry Cleaning in Home

Clothing specialists for the agricultural extension services advise homemakers to heed the warning of USDA safety and health advisers that many persons have been fatally burned or disfigured while cleaning garments at home. The best answer on how to dry clean is "don't" —unless you are very cautious. Garments may still be dry cleaned more efficiently and safely by dry cleaning establishments.

However, those who still feel they can do this work successfully at home should use only a non-flammable fluid. There are many good non-flammable cleaning fluids on the market — but remember that cleaning fluid may be marked "non-explosive" and still be flammable. Never, under any circumstances, use gasoline, naphtha, or kerosene for garment cleaning purposes. Keep the hands out of the fluid by using a suction washer especially if the skin is sensitive. Do the cleaning outside of the house where all toxic and other vapors will be carried off in the open air. Dry garments outdoors. Keep children and pets away.

Many homemakers have discovered that they can wash successfully many garments formerly sent out for dry cleaning. Use mild soapsuds and lukewarm water for both washing and rinsing. Squeeze instead of rubbing and wringing. Roll in a thick bath towel to remove excess moisture rapidly. Press with a warm but not hot iron when almost dry.

Retain Grit

Observations in Michigan, further confirmed by Pennsylvania and Iowa authorities, indicate that game birds can survive for many weeks without fresh grit. The function of grit, it is believed, is to aid digestion by grinding seeds. However, it has been learned that when a continuous supply is not available game birds are able to retain the grit they already have. One experiment showed that pheasants and quail can endure, without ill effects, 10 or more weeks of winter weather with no grit. Even during periods of heavy snowfall, some grit is usually available in gravel and sand along roads, in wind-swept fields, and in ditches. Prolonged sub-zero temperatures, blizzards and ice storms are much more hazardous to game birds than is the general lack of food and grit.

Andover's Roll of Honor

KILLED IN ACTION

Staff Sgt. William Dougherty
Staff Sgt. Charles R. Burgett
Claude Drew, Jr., Sea. 1|c
Pfc. Frank McKibben
Pvt. William H. Crosby
Pvt. Raymond L. Cartwright
S|Sgt. Charles W. Lever

MISSING IN ACTION

1st Lt. Donald E. Hardy

Sgt. John F. Ahrens
Pfc. Ralph A. Allen
1st Lt. W. Paul Alderson
Henry Lee Antan, M.M. 1|c
Pvt. C. A. Armstrong
Mary E. Baker, C.N.
Sgt. H. Bruce Baker
Sgt. Howard Baker
Sgt. Leo C. Baker
Cpl. Max Baker
Pfc. Newell C. Baker
Pfc. Roger P. Baker
Robert Baker, A|S
Pvt. Lasca O. Baker
Bernard N. Bertrand, C.Ph.M.
Pvt. Richard Beihl
Pvt. Dennis Beihl
Sgt. Peter C. Breiding
Pfc. Everett Briggs
MT-Sgt. Clyde R. Briggs
Sgt. Raymond Briggs
Sgt. Milton A. Briggs
Cpl. Howard Brewster
Lt. Edward P. Brewster
Pvt. Kenneth Brown
Lt. Wilfred S. Brown
Cpl. Leslie W. Brundage
Pfc. Carl B. Budinger
Sgt. Lloyd W. Burdick
Cpl. Ernest Burdick
S|Sgt. Clifford Burdick
T-5 Clayton Burger
1st Lt. John L. Cannon
T-5 Clarence E. Carson
Capt. Edward Cannon
Pfc. Conrad Church
Pvt. Harold C. Church
Sgt. Ernest Clark
1st Lt. Francis Clarke
Sgt. Elwin E. Clark
Cpl. William W. Clarke
S|Sgt. Richard Clair
Pvt. Francis N. Cornelius
Garland Crandall, C.M. 1|c
Jack Truman Coats, Ph.M.2|c
Pvt. Kenneth Cook
Wisner H. Cook, Ph. M. 2|c
Capt. J. Robert Common
Richard Cronk, S.1|c
Sgt. Edward J. Dean
Sgt. George Dean
Pfc. Laurence E. Dean
John Dean, Y.3|c
Donald DeRemer, C.M. 2|c
Pvt. Louis John Dodge
Sgt. Edward J. Doherty
Warren D. Dolan, A|S
Wanda Dolan, C.N.
T|Sgt. Gerald F. Dolan
Carolyn E. Dolan, D.H.
Sgt. Thomas B. Drew
Norman Drew, G.M. 3|c
James C. Driscoll, R.M. 3|c
Sgt. William Dugan
Cpl. Paul D. Dunham
Pvt. Floyd William Ellis
Cpl. Donald J. Emery
Pvt. Llewellyn O. Fairbanks
Pvt. Raymond Flynn
Lt. Leo Fulkerson
Pvt. Louis C. Fulkerson
Lt. James W. Fuller
Pvt. Theodore Foster
Pvt. Robert H. Freeland
Pvt. Oliver A. Freeland
1st Sgt. Howard L. Gath
T-5 Charles E. Gath
Pvt. Kenneth Gath
T|Sgt. Walter Gath
Pfc. Michael V. Gavin
Pvt. Elwin L. Gayhart
Pvt. Miles Gorsuch
Pvt. Charles M. Greene
Pvt. George C. Greenan
Cpl. Lester LaVern Greene
Capt. E. C. Greene, M.C.
S|Sgt. Montrose Greene
Sgt. LeRoy Guilford
Cpl. Charles E. Hall
Raymond Hall, Sea. 1|c
Cpl. Robert Hall
Pfc. Frederick P. Hammell
2nd Lt. Onnolee Hammell
Anna Hardy, C.N.
Pfc. Arnold C. Hawks
Sgt. Jason Hawks
Capt. John S. Herrick
Charles M. Holt, Jr., F 1|c
James Holt, A|S
Pfc. Carl Honegger
Sgt. Alvin M. Hoover
Lenford Horton, Sea. 2|c
Pvt. Otto D. House
Pfc. Comer Howard
Sgt. Harold Howland
Pfc. John Howland
Sgt. Lawrence R. Howland
L. L. Howland, C.T.M.
Harold Huffcutt, Chief A.M.M
Cpl. Gerald Hyland
S|Sgt. Dean Hammond
S|Sgt. Herman R. Ingraham
Pvt. Carl R. Ingraham
Pvt. Paul L. Jackson
Sgt. George Joyce
S|Sgt. Donald L. Joyce
Clare L. Jackson, B.M.2|c
Eldon L. Kaple, A|S
George Karcanes, S.1|c
Kaliopy Karcanes, S.C.3|c
Sgt. Clyde H. Kemp
Roland P. Kemp, E.M. 2|c
Pvt. Edwin Kemp
Pfc. Orville J. Kupp
Sgt. Richard Ladlee
Pfc. Arnold B. LeBar
Cpl. Wilbur C. Lehman
Pfc. George Leslie Lehman
Cpl. Arthur Weslie Lehman
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Pvt. Leo Lewis
Pvt. John J. Lewis
1st Lt. Merle Linza
Sgt. Mark E. Ludden, Jr.
Sgt. Raymond Lynch
S|Sgt. Donald J. Lynch
Pvt. William Marvin
Ardean Matison, F.1|c
S|Sgt. William Martin
Sgt. Joseph McAndrew
T|Sgt. Richard B. McAndrew
Pvt. Howard E. McAndrews
Vincent McAndrew, Mo.M.M.1|c
Capt. Francis McAndrew
Vincent Mitchell, C.C.M.
Robert W. Mitchell, S.2|c
Cpl. Anna M. Mitchell
Pvt. Kenneth R. McClure
Pfc. Joseph Monroe
Lawrence Monroe, Mo.M.M.1|c
T-5 Daniel J. Mullen, Jr.
Cpl. Floyd Neupert, Jr.
Pvt. Charles J. Nevol, Jr.
Pvt. Bernard A. Neville
T-5 Donald L. Nichols
F.O. Frank T. Nye
Sgt. Victor Oakes
S|Sgt. Robert W. O'Boyle
T-5 George E. O'Dell
Sgt. Hamilton L. Ordway
Pfc. Burdette Ordiway
Pvt. Donald J. Ordiway
Mary Padden, C.N.
Pvt. Edward T. Padden
Ernest E. Padden, S.1|c
Pfc. Robert Perry
Glenn L. Perry
Elaine Pope, C.N.
Ensign Farnham G. Pope
Richard Potter, S.1|c
George E. Prue, E.M. 2|c
Chester D. Prue, A.M.M. 2|c
T-Sgt. Joseph A. Ray
T|Sgt. John J. Regan
Lester Regan, F.1|c
Pvt. Ferdinand L. Reisman
T-3 Daniel M. Reisman
Pvt. James K. Reisman
S|Sgt. Harold Rice
Pvt. John P. Richardson
Regina A. Richardson, S.1|c
Pvt. Earl Riffle
Jean Rogers, C.N.
Pfc. Raymond Rogers
Cpl. Stanley Ruger
Paul Ryan, H.A. 1|c
S|Sgt. John W. Saunders
T|Sgt. Robert E. Scott
C. Roland Shaff, C.M. 3|c
Cpl. Harold F. Sisson
Pvt. Clyde J. Shellman
Sgt. Claude L. Shellman
Staff Sgt. Leslie Sherwood
Sgt. Stanley W. Sherwood
Pvt. Darwin Shutt
Pfc. Merle Shutt
Doris Sick, C.N.
Arthur Silsby, Sea. 2|c
Sgt. Ralph H. Skinner
Ruth O. Slocum, C.N.
Ferdinand J. Smith, Jr., S.2|c
Pvt. Raymond Craig Snyder
Pfc. Edward S. Staebell
Richard Stewart, Chief A.M.M.
Sgt. Walter Strouse
Sgt. Richard Stockman
Pvt. Walter Storms
Lt. Barbara E. Temple
Arthur R. Temple, A|S
Kenneth J. Tidd, M.M.1|c
Richard Trowbridge, R.T.2|c
1st Lt. Alan Tuttle
T-4 Roger Tuttle
Sgt. Paul F. Updyke
Wendall Vars, Ph.M.3|c
Cpl. T-5 Fred W. VanCuren
T-5 Robert VanCuren
Cpl. Herman L. Wallace
Pvt. William Weed
Pfc. Lyle West
Pvt. Harold E. West
Quintin West, Sea. 2c
Cpl. Carl Will
William S. Wahl, Sea. 2c
Pvt. Kenneth R. Williams
Pfc. James S. Witter
Pvt. Floyd E. Woodworth
Rose E. Yannie, Sea.1|c
S|Sgt. Victor Yannie
Clyde M. Yorton, C.M.1|c

Released From Service

Howard H. Alvord, A|S
Pfc. John E. Baker
Pfc. Clifford Bixby
Pvt. Nathan Burdick
Pvt. John C. Brownson
Pvt. Elbert D. Cable
Sgt. Francis E. Cable
Sgt. E. Gordon Cartwright
Cpl. Paul Childs
Lloyd Clair, A|S
Floyd C. Coats, F.1|c
T-5 Richard Coates
Pvt. John Connor
Pvt. Burrel H. Cole
Cpl. Leo DeRemer
Pvt. Theron Jack Ellis
Homer G. Glover, A|B
P.F.C. Jeane E. Greenan
Pvt. Linford Grossman
Cpl. Fordyce E. Hall
Cpl. Frederick Halsey
Pvt. Gerald W. Hann
M|Sgt. Allen M. Harvey
Pvt. Albert T. House
Capt. Howard J. Leahy
Pfc. Rex Linza
Richard C. Ludden, S.2|c
Pfc. Earl Matison
Cpl. Lynn Matison
Cpl. Mary Driscoll O'Connor
Pvt. Clifford E. Perry
Pfc. Ernest D. Rice
Pvt. Louis P. Sherwood
William C. Slocum, A|S
Pvt. Floyd E. Sweet
Sgt. Kenneth Vars.
Cpl. Clarence S. Wagner
Sgt. Raymond Winchell
T-Sgt. Emilio Yannie
Staff Sgt. Vincent Yannie

Get It?

Susan—"Cora told me that you told her that secret I told you not to tell her."

Madge—"She's a mean thing! I told her not to tell you."

Susan—"Well! I told her I wouldn't tell you she told me so don't tell her I did."

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