### To the Editor

#### Agricola and Agricola

Sir:

In an earlier letter, an error is perpetuated, viz. the confusion about Agricola. Keefe (SN: 6/24) mentioned Kucha's citation of Agricola (37-93 A.D.) describing lung diseases among the Joachimsthal miners.

The Agricola of the first century A.D. was a Roman general, a one time governor of Britain, and a contemporary of the Emperors Nero, Vespacian, and Titus. He was not the Agricola of Joachimsthal and Scheenberg. The Roman Agricola was memorialized by Tacitus, his son-in-law and biographer.

The Agricola of mining and medical fame was born in Saxony in 1494 and named George Bauer. His name was later latinized, probably by his teachers, to Georgius Agricola, but it still meant peasant or farmer. Agricola was graduated from medical school by 1524, and in 1526 was appointed town physician at Joachimsthal. This Bohemian town was central to the most active mining district of that period. From the plutonian realms near this city came vast riches of silver and lead ores of singular purity.

Georgius Agricola was consumed by a passion to know more about mining procedures of the time, and as he wrote: "any time not taken up by medical duties was spent in the mines." From his medical training, and inquisitiveness about mines and minerals, came a monumental volume, "De Re Metallica," the premier work on mining geology and practices that had no peer for nearly two centuries. Not until 1738, with the publication of Schulter's work, did "De Re Metallica" have an equal in this field.

George Bauer's work is held in special esteem by those in occupational health as it is a classic in early occupational medicine. It was this Agricola who was the first physician to be interested in diseases caused by work. He paid special attention to respiratory hazards of mining when he wrote:

"If the dust has corrosive qualities, it eats away the lungs, and implants consumption in the body; hence in the mines of the Carpathian Mountains women are found who have married seven husbands, all of whom this terrible consumption has carried off to a premature death."

Further, he pleaded for better ventilation in mines as a means of ameliorating this form of lung disease. This consumption of Agricola would be better known today as silico-tuberculosis, a disease in which particles of silica dust enhance the pathogenicity of tuberculosis.

Two additional notes about the Joachimsthal ore deposits: First, our word "dollar" is a corrupted form of Joachimshaler, later "Thaler." This term was used to describe silver of excellent purity produced from these mines, and second, pitchblende ores from this mining district were the raw materials from which Pierre and Marie Curie isolated radium.

Thomas F. Torpy
Assistant Professor of Health Science
San Fernando Valley State College
Northridge, Calif.

#### Kind Words

Sir:

I congratulate you on your new format. It is most attractive and the whole publication is made most interesting. Having subscribed for many many years, I do appreciate this change.

Hedie S. Kuhn, M.D. The Hammond Clinic Munster, Ind.

#### **Bufus in Louisiana**

Sir

I have noted the story on the giant toad, Bufus marinus (SN: 7/8).

It may be of interest to you to know that this toad was introduced into south Louisiana in the early 1930s to feed on adults of the sugarcane beetle, Euetheola rugiceps (LeConte). I was living in Louisiana at that time but do not recall any accidents with the toads. Also I do not know whether the Louisiana introductions became established there.

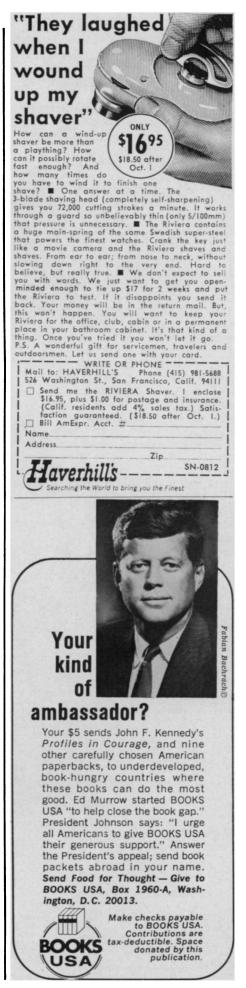
Occasionally, a specimen of Bufo marinus is seen in Gainesville. It would be very simple for someone to bring specimens from south Florida, in a car or truck, either by accident or intent.

L. A. Hetrick Professor of Entomology University of Florida Gainesville, Fla.

#### **Bufus Marinus**

Sir

The article entitled A Plague of Toads (SN: 7/8) which dealt with the Bufus marinus, was most in(see p. 150)



12 August 1967 / Vol. 92 / Science News

149

teresting, 'tho a bit more sensational than usual.

Within a week I was reading the new book by Daniel P. Mannix, "A Sporting Chance" (E. P. Dutton & Co., Inc., 1967). In Chapter 15, Mannix had something to say about Bufo (or Bufus) marinus which was quite different from the content of your article.

He referred to a couple of these toads as two of Florida's most important natural resources, noting that they are so effective in destroying pests that they have been introduced into many other parts of the world, and are being raised commercially in Hawaii. These toads, says Mannix, seem to be entirely beneficial, although they do exude a fairly potent poison that can make a dog very sick, but is harmless to humans who do not try to bite toads. He does cite one bad case of hives suffered as a result of the poison by a small child under special circumstances. His opinion is in such contrast with that expressed in your article that I can't help wondering who is right.

Incidentally, your magazine, which I have read for years, is one of my favorite publications.

Wm. Hugh Stephens Savannah, Ga.

# Films of The Week

Listing for readers' information of new 16mm and 8mm films on science, engineering, medicine and agriculture for professional, student and general audiences. For further information on purchase, rental or free loan, write to distributor.

ADDING TO MAKE SEVEN, 16mm, color, sound 10 min. Uses color and animation to help make the understanding of sets and the commutative principle of addition a reality to the young child. Audience: primary-elementary. Purchase \$125 from Film Associates, 11559 Santa Monica Blvd., Los Angeles, Calif. 90025.

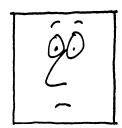
ELECTROMAGNETS: ELECTRICITY
MAKES MAGNETS. Six films, 8mm or Super
8mm, color, silent, 2-4 minutes each. Developing
the basic concepts of electromagnets in a logical
sequence, from the magnetic field of a coil of
wire carrying current to the use of electromagnets to turn a motor. Purchase \$14 each for
8mm size or \$16 each for Super 8mm size from
Systems for Education, 612 North Michigan Ave.,
Chicago, Ill.

FIRST AID-NEW POSSIBILITIES IN EVACUATING THE INJURED. 16mm, color, sound, 22 min. French, English, Spanish, or Portuguese versions. The conditions under which the wounded were evacuated from the battlefield have contributed to the development of new first aid techniques. Applications show include mountaineering accidents, skin-dividing accidents, drowning, burns, and respiratory accidents. Audience: doctors, medical personnel. Free loan from Society for French American Cultural Services and Educational Aid, 972 Fifth Ave., New York, N.Y. 10021

PALL OVER AMERICA. 16mm, b&w, sound, 15 min. Overall summary of the national air pollution problem. Shows principal sources of dirty air, describes effects of air pollutants on materials, plants, and human beings, and illustrates a few of the technological devices now available for abating pollution from automobiles and certain industrial operations. Audience: civic groups, clubs, general. Free loan from Public Health Service, Audiovisual Facility, Atlanta, Ga. 30333. (Produced by National Educational TV).



## How would it be if your income paid only 1/3 of your expenses?



## It would be like running a college.



Because tuition pays only about 1/3 of what it costs a college to educate a student.



The other <sup>2</sup>/<sub>3</sub>? It must come from other sources ... including you. Give to the college of your choice.





Published as a public service in cooperation with The Advertising Council and the Council for Financial Aid to Education.