of the laws of nature, tested by experiment and practice, is authentic knowledge having the validity of objective truth; there are no things in the world which are unknowable, but only things which are as yet not known, but which will be disclosed and made known by the efforts of science and practice."

— Joseph Stalin

# WELL, HERE IT IS

Several months ago, I sent copies of my personal newsletter the POINTING VECTOR to friends with whom my shared interests included science and science-fiction. I was rather surprised to find the POINTING VECTOR being reviewed as a science-fiction farzine, since only a few pages of each issue dealt with science-fiction. But, upon attaining a wider knowledge of fan publications, I found that many other fanzines concern themselves overwhelmingly with jazz-fandom, comic-book-fandom, politics-fandom, sex-fandom, and religion-fandom

It seems to me that, while much worthwhile material has been appuaring in fanzines, little of it is related to the literature of acience-fiction and fantasy, and to science. I have therefore removed matters properly germane to science-fiction and fantasy from the POINTING VECTOR, and will henceforth run that newsletter as a bulletin of personal news and comment on mundane subjects. ANCWABLE, which takes its name from the quote on the masthead, will deal with science in fact and fiction, and with fantasy.

This is not to say that mundame politics will be completely banned from KNOWABLE. Such subjects as the ethics of military scientific research, the effects of radioactive fallout and the disposal of industrial radioactive wastes, public policy with regard to science education, and the various political systems which claim to embody scientific approaches to the problems of mankind, will come under the purview of KNOWABLE. So will many scientific discoveries or extrapolations which have been made parts of sef stories and whether the handling of science in sef contributes to a better understanding among laymen of scientific method and the impact of selections and society upon each other.

And here are a few of the things that KNOWABLE will not dos
(1) KNOWABLE will not review every other fanzine that appears.

If articles of particular interest appear in other fanzines, they
will be recommended to the attention of the readers of KNOWABLE.
(2) KNOWABLE will not review every prozine. As with fanzines,

(2) KNOWABLE will not review every prozine. As with fanzines, stories and articles of particular interest will be reviewed and commented upon.

(3) KNOWABLE will not be an apazine. I regard with horror the prospect of having to read from 20 to 65 fanzines with each mailing of the apa. The Cult, with one 'zine every three weeks plus and cillary publications, is quite enough.

(4) KNOWARLE will not automatically print every letter that arrives. Nor will interminable arguments on topics appropriate to

other fandoms be perpetuated in the letter column.

(5) KNOWABLE will not commit itself to any definite publication schedule. It will appear whenever I can get a tolerably well balanced issue together. Anyone who wishes to exchange his own fanzine for KNOWABLE does so at his own risk of getting KNOWABLE often enough to make it worthwhile,

(6) Will KNOWABLE be sercon? Con yes; ser no. The limitation of KNOWABLE to science, sef, and fentasy, does not mean that every feature will be a grim article. KNOWABLE solicits fiction and non-fiction. I'm not going to ask for artwork until I decide whether future issues will be dittoed or mineced.

KNOWABLE will be available for trade, comment, subscription (5 issues for \$1) or for the hell of it. KNOWARLE #1 is duplicated by Steve Stiles,

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KNOWAELE #2 will contain an article which was originally scheduled for #1 but postponed by time pressure. The title will be "The Great Secret of Fandom", and the subject matter was suggested by my impressions of Chicon III and the people I met thereo 49 49 49

Also scheduled for a future KNOWABLE is a review of E. E. Smith's Skylark of Space and of Ivan Yefremov's Andromeda, to be titled "Our Skylark and Theirs". If I am able to develop scane presently highly tenuous contacts with Soviet and East German fans, the readers of MNOWABLE will have a channel of information from those unknown territories.

The recipe for crottled greeps has at last been released to the world - and by a non-fan, too, John Wilcock's column in the Village Voice of 23 August 1962 reveals this recipe?

3 cups utterly crumbled Nabisco vanilla wafers

1 cup finely chopped shelled pecans 1 cup sifted confectioner's sugar

3 table spoons cocoa

3 tablespoons corn syrup

2/3 cup bourbon

Thoroughly mix the dry ingredients except the sugar, then add corn syrup and bourbon, again mixing thoroughly. If the mix seems dry, add more bourbon. Now form balls about 1 inch in diameter, coat them with the sugar, and store in an airtight can for 18-24. hours. The surface moisture may dissolve the sugar during the curing period, in which case sprinkle on some more. Don't eat on an empty stomach, and don !t serve to minors. A blender works fine for crumbling the cookies. Rum or brandy may be substituted for bourbono

Now if, instead of bourbon, you use blogooo

I am trying to buy a good used duplicator, either ditte or mimeo. If you have one for sale, please write information about condition and prices

# FANDOM IMPRESSIONS OF CHICON III

The N3F Hospitality Center, a welcome source of coffee and cosmic conversation - though, early in the morning it more resembled a Rospitalization Center as unconscious fans were stacked in the corners like cordwood ... The Robert Heislein doll: Wind it up and it hands you a glass of water ... The Art Show, seen by the light of Bjo Trimble's shining freckles ... I'm not attending another Con bold at a Pick hotel ... The FAPA doll: Wind it up and it gafiates ... Lee Hoffman would be sexier in nun's robes than Dian Girard stark nakedooo Conservative fans will be glad to know that George Price dressed as a member of the Society of Assassins, zapped me at the ball when I showed up wearing a "Russian Spy" cardooo The Society of Assassins is in the best tradition of the free enterprise system. on The Cult doll: Wind it up and it insults you. on Labor Day morning, the hotel elevator descended from the 3rd to the 1st floor at 9.8 meters/sec2. I was on the 9th floor when I learned this coo The Walt Willis doll: Wind it up and it crosses the Atlanticooo" 664 Frisco and Fog" ooo What kind of personality test is it that puts me only in the 33rd percentile on the "aggressivemess" category? oo And how are you going to test fannish Cosmic Minds with an IQ test that cuts off at the low level of 137? ... The Doc Smith doll: Wind it up and it goes Northwestoon Interplanetary" being perpetually played in the Hospitality Room, with one game actually completed after 14 hours. Prediction: "It oll never replace chess. - J2000 George Nims Raybin holding forth on law and reform politics before a farcinated audience in the Hespitality Roomono Jerry Pournelle applying Cames Theory to the Third World War is like the solemn deliberations of German chemical and transportation engineers over the most efficient and least costly method of Finally Solving the Jewish Froblem - a structure of exquisite reasoning erected on a foundation of madnessoo. The Sam Moskowitz doll: Wind it up and it sings a solo in the key of I. . . The Coulsons look exactly like their sketches at the heads of Ramblings and Rumblings; and that, chilluns, is why KNOWABIE isnot illustratedooo I had not realized before this Con how many gracious and gentle people there are high in the microcosm: Ted Sturgeon, Avram Davidson, ktp. Their natures inspire respect, but I'm afraid I'm incapable of imitating themocoWhoinell votes in the Hugo polls anyhow? Outside of the art awards (which is a field I can't discuss with knowledge) I felt that all but the fanzine award were gross miscarriages. If a more poorly pletted and turgid series of stories than the Hothouse yarns has appeared since the 130 s, I was mercifully gafiated at the time. Ditto Stranger in a Strange Land with knobs on. If Gillian Boardmen turns out to be my granddaughter. I'll disinherit heroco The to be some awfully odd slogans floating around when it comes time to consider the location of the 1969 convention oco The APA X doll: Wind it up and it denies it exists ... Paul Krassner showed up to cover the convention. Heat year, Frederick Wertham. .. One relieve traveler on the return trip was Sensitive Fannish Feline Browster Davidson. Look for an increase in Reginald Bretnor stories in FaSF. oooThe Juanita Coulson dolls Wind it up and it sings through its nose occ Excellent slivovitz at the Washington fans party. It's a drink you should lay off as soon as you can't pronounce it any more ocol wonder whether Avram's and Grania's Neo will win a mimeo at the next Con ... Is there any truth to the rumor that Elliot Shorter is really a hoax perpetrated by Carl Joshua Brandon? .. . Most interesting feature of the Con: Fritz Leiber's talk "Fafhrd and Me" ... Logst interesting: Panel on The Sonse of Wonder"

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At one point during the Washingtonians party I vaguely remember encountering a fame with long blonde hair and a starry costum, who was identified as something out of The Lord of the Rings.

Drawing upon the inspiration of Bacchus, I recited:

O Elbereth Gilthoniel, I look at you and what the hell! There's bourbon whiskey on thy breath, Galthoniel O Elbereth!

one The Cult had a table to itself at the banquet, but did not appear in their favored monkish hoods on I went to the Con in Dick Eney's car with Dick, Ethel Lindsay (TAFF), and Lee Hoffman; recturned minus Ethel but with two and eight ninths Davidsons (plus Brewster). Ethel has gone on to spread her Scottish burr over the west coastoo Some people shocked to see Breen still bearded, contrary to rumoro Would there be any real reason why the tallies of the Hugo votes can't be made public? On I think that conferences would be preferable to Cons for any serious discussion. Cons, if Chicon III is any example, are too large and hectic. There is really no chance to renew old friendships and form new ones.

# THE NEXT ONES

The forthcoming s-f conventions have been amounced. All data now available on them is listed.

3 November 1962 - Philcon, Hall of Flags Wost, Sheraton Hetel, 16th Street and Pennsylvania Blvd., Philadelphia. The conference begins at 1 PM, and will be followed by a party. The entrance fee is \$1.00.

10 March 1963 - Eastern Science-Fiction Association (ESFA)<sub>8</sub> Annual Open Meeting, YM-YMCA Building, 500 Main Street, Newarko

Time is tentatively set for 2 PM.

21 April 1963 - Lunacon, Room 10D, Adelphi Hall, 7h Fifth Avenue (just south of Union Square), New York, Begins 1 PM, 29-30 June 1963 - Midwestcon, North Plaza Motel, 7911 Reading

Road, Cancinnation 4-7 July 1963 - Somewhere in the San Francisco area. Details

later

Labor Day weekend 1963 = 21st World Science-Fiction Convention, Statler-Halton Hotel, 16th and K, Washington, Mombership \$2,00;

registration of attendees, \$1.000

Silvercon, silver anniversary of 1st World Science-Fiction Convention, New York, Hal Clement, H. Beam Piper, and Theodore Sturgeon have promised to take part, For further information write Franklin M. Dietz Jr., 1750 Walton Avenue, Bronx 53, New York, The Silvercon is scheduled for July 4th weekend, 1964,

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It was announced in POINTING VECTOR #10 that the results of the poll on pp. 3-4 of that newsletter would be published in both POINTING VECTOR #11 and KNOWABLE #1. The poll elicited only 23 responses out of about 130 people, and 2 of these replies were post-deadline. In view of this poor showing, the poll results will not be tabulated in KNOWABLE. Those interested in the results should write for a copy of POINTING VECTOR #110

First of all I think we have to begin by putting the phrase "age of the universe" in quotation marks, since I see at present no evidence against the assumption that the material universe has always existed. For me all that such a phrase could mean is the estimated time back to some important large scale event for which we think we have evidence, e.g., the occurrence of exceedingly high densities and temperatures or the beginning of nebular recession. This carries for me no implication that the universe was created without previous past history at the time of any such event. For example, if at some time in the past there was an occurrence of high densities and temperatures followed by recessional expansion for the matter within the range of our present telescopes, it would seem reasonable to consider this as the probable outcome of a preceding stage of contraction, for that matter.

Richard Chase Tolman
Reviews of Modern Physics,
81, 374 (1949)

#### ON FIRST LOOKING INTO TOLMAN'S UNIVERSE

Sweeping the chill vault of the night My eyes were dazzled by the sight Of a myriad stars and systems; So wonder grew.

Is this great cosmos but finite?

The are we captives of the light which curves two billion years across the vasty reaches?

Will we see no farther into space?
Nothing beyond for the human race
To live, and strive, and hope for?
Nothing -- but emptimess?

Is space just one great swelling bubble? And should it burst, will men still trouble The Milky Way, our Island Universe With prying eyes?

Or will space reach a size so grand That it no longer can expand; Then — bit by bit — drift back again Into one massive ball?

And will this molten ball explode? Its stars raborn to yet unload On space ten million planets Like our earth?

A pulsing, uncreated universes Is it a blessing or a curse That such evolving, endless cycles Should make God, odd?

- William J. Hall

#### SCIENCE MADE TOO EASY

# I. Physics

Physics is the study of matter and energy. In recent years this has been complicated by the compersion of the former into the latter.

A physical change differs from a chemical change by not involving the disruption of molecules. Chemists seem to take this personally, and always devote the first two weeks of elementary chemistry courses in making this point clear.

#### Force

Elementary physics courses stress the formula F = ma. This is all that most students remember of physics. In later years they even forget that F = ma is connected with physics, and think it was a fraternity.

A few years ago some radicals tried to change this to F = lama.

This was promptly banned by the Atomic Energy Commission.

### Newton's Laws

Newton's laws of motion have been the basis of physics for almost 300 years, so modern physicists are continually questioning them, Some doubt that the second and third laws are talking about the same thing. Newton's laws are concerned with force, which is defined in terms of mass, which is defined in terms of force.

Newton developed his ideas of gravity when an apple fell on his head. He was clever enough to perceive that his head was ac-

tually falling on the appleo

Newton's laws of motion are still useful if you happen to be restricted to a range of a few billion miles. Using them for greater distances is impractical.

#### Mass

Mass is not the same as weight. Physics instructors stress this without telling what it is the same as. It is important to remember that one gram of mass is not the same as one gram weight, except at such unusual places as the surface of the Earth.

Centrifugal Force

This does not exist.

# Centripetal Force

This does not exist either, but it's easier to measure.

#### Time

Beginning physics students don't worry much about time. In connection with physics, that is.

Intermediate students are told that time is imaginary.
Advanced students are told that time is not imaginary after all. This is a great comfort to them, and enables many to go on to their Ph. D. Ts.

## Hydrodynamics

Instructors always plan to include a lecture on hydrodynamics if they can find the time between the mechanics and heat sections of the course. This never happens.

#### Heat

See Thermodynamics

## Thermodynamics

See Heat. Also Electricity, Mechanics, Chemistry, and anything else within reason.

### Absolute Zero

This is even colder than an upstate winter. As temperature approaches absolute zero, molecules move slower and slower. When it reaches absolute zero, they stop. Below absolute zero, they go backwards.

# The First Law of Thermodynamics

This law states that heat is equivalent to energy. This is only true of some people.

# The Second Law of Thermodynamics

This law is more popular with philosophers than with physicists. (See "The Uncertainty Principle".) It claims that the universe is running downhill, and that time goes from the past to the future. Some modern physicists regard this as a personal insult.

There is also a third law of thermodynamics. It states that absolute zero cannot be attained before the research grant runs out.

# Electricity

Electricity consists of electrons, which go the wrong way. It is commonly found in batteries, dynamos, wall sockets, and the fingers of careless lab students.

# Voltage

Voltage differences cause electric charge to flow in a closed circuit. This is explained to elementary students by analogy with hydrodynamics, which none of them have had. (See "Hydrodynamics".)

#### Resistance

Resistance is measured in ohms. The opposite of resistance is conductance. Conductance is measured in mhos. Physicists think that this shows a sense of humor.

#### Magnetism

Beginning students learn magnetism by analogy with electricity. They then learn that this analogy is false.

(Continued in the next issue)

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Total

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KINOMYELTE #1 F8

TWOWARLK is available for trade, contribution, letter of comment, subscription (\$1 for 5 issues, of which this is or or cause the editor feels like it.

HNOWABLE

Al, November 1962

John Boardman

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