

the observer

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the cover

karl guthe jansky
1905-1950
father of the science of radio
astronomy. first to discover
radio emissions from outer
space at bell telephone lab-
oratories, holmdel, new
jersey, in 1932.

300-ft news by shep sutton in cahoots with
ralph high

not much technical news. we are continuing with the 100 channel auto-correlator program with the exception of w. c. erickson's solar occultation of tau a on 234 and 405 mcs.

someone hurry down here with the flit gun. there's one here now. a blue one.

our outside housed rapid frost maker (what we laughingly refer to as our air conditioner) intensifies the suffering of hay fever victims. more so than the normal correctly working air conditioners. we wonder if there is a logical scientific or medical reason. anyone know?

we now have a tanager here at the 300-ft. we expect to have more soon if anybody wants to borrow one.

one more of those continual fish stories: one of our expert fisherman (we consider anyone an expert who doesn't bait with cheese) was fishing when a trout completely swallowed his fairly large artificial lure. it was a spinner with a treble hook. writer can vouch for the truth of this. he was there.

has anyone seen the stock of hand-woven baskets that jfc and bill t. brought back from their western jaunt? seems as if they took up the art of basket weaving while visiting kitt peak.

we would like to take this opportunity to say so long to our distinguished editor and offer him our congrats on a job well done as editor of the observer. incidentally bill, that was some sales talk you gave darrell and shep on the vw, but don't you think you went overboard on the gas mileage but with dave williams? have you seen him pedalling past the harris house around midnight on his new english type bicycle?

nothing more. we have a deadline to make. also since this writer is superstitious of jim white sweeping around him, i will quit for this time. le roi le veut.

85-ft news by tony distasio

after 85-2 was moved last month from station 5 to station 4, new rotating feeds were installed on the front ends of both of the 85's, to facilitate polarization measurements. when it was ascertained that the polar axis of 85-2 was properly aligned with the earth's axis, a program was begun at that telescope to determine the pointing error involved.

this program was already in progress at 85-1. afterward, a lunar occultation was observed with this telescope at 11 cm., in conjunction with an observation made with the 140-ft. also, some flux density measurements were carried out with 85-1, using the capabilities of the rotating feed.

since then, a program of calibration tests has been done using the interferometer. this program included baseline and polarization calibrations, tests of the delay-tracking system, and some examinations of source structure using the aperture synthesis technique.

we would like to welcome ralph graham, a new operator, to the 85's. we seem to have lost ralph high and charles sutton to the 300-ft, at least temporarily. we are sure that they will find their new work pleasant there.

140-ft news by bill hunter

hopefully, today, june 18, a 6 cm receiver, under the direction of dr. peter mezger, will be installed on the 140-ft and full time observing will begin. here's hoping all systems are "go" and this beautiful brute, as she's sometimes

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referred to, performs as we all know she can. really, we have the utmost confidence and do not expect over a maximum of 5 or 6 malfunctions. this isn't a first for the 140' dish. two lunar occultations were observed earlier, one may 23rd and another june 7th. the first was quite successful. the second not so well as interference became a problem at the crucial time. however, dr. von hoerner says the data were useful. during both observations the telescope performed well.

the major part of cabling the 140' has been completed. due to the efforts and long hours of troy (yellow hat) henderson, the very efficient scope mechanics and the operators, the job was done well, and with a minimum of defamatory oratory. mackie, dell, and some of the other fellows performed aerial acrobatics that would evoke envy from a trapeze artist. these boys are to be commended for a job well done. only two sections of spiroline remain to be installed.

special mention and good words, i think, are also in order for the warriors. to mr. crews, brown, horn, and others who denote time, energy, life, liberty, and pursuit of accomplishment in order that this instrument may bring us secrets from the universe.

howard lambert, your worthy (wordy??) correspondent from the 140-ft, has accepted a position at sugar grove. he will be sadly missed, especially in this department. we wish him much success in his new endeavor.

we wish also to wish bill terrell well. this virile virginian is leaving us for the sunny climate of arizona and kitt peak. bill is well acquainted with arizona, having resided there before and is quite pleased with the prospect of working there again. we hate to lose him here. his down east accent and quick wit will surely be remembered. Good luck bill and keep in touch.

eugene marcum and odell johnston are in michigan for two weeks at vicker's hydraulics school. it just doesn't seem the same here with these fellows absent. all concerned have missed odel's quiet conversations and gentle manner.

some of us, being relatively new at the 140-ft are quite impressed and interested in the size and the complex machinery, controls and structure included in this operation and are certain it will become a pleasant and productive place to learn and work.

lab gab by mild man of reporter skip thacker

the electronics division has been perty busy the past month, with everyone working hard. the transportation system for the lab has been modified. car 12 is no longer available for general use. instead it has been made into a lab "taxicab" with jerry turner (ext. 231) as driver. it is hoped that the system of having a taxicab available will help solve the lab's transportation problem.

low noise lab -

speaking of transportation, we have heard bill lowman bragging about how fast his volks-wagon is again. he claims that he was caught speeding by the deputy sheriff, but we all know better.

the 600 feet of 48 conductor cable that you've probably seen (or maybe tripped over) spilling out of the front end lab was for the test mounter behind the lab building. the front end group is still working hard trying to debug the occultation unit.

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digital lab -

claude bare's wife just returned from a weeks rest in the hospital. she is expected to return in the near future, however, to have a papoose. is it true that if it's a boy they will name it teddy?

the digital lab has a new student in the capable form of James Alan Steppe (who prefers to be called alan). alan recently graduated from north carolina state and will be returning this fall to get his masters degree.

ridem' cowboy vnable should be getting a new pony (mustang) before long, as soon as he can find one with that certain shade of pink.

millimeter lab -

tama menon will return to mm lab next week.

the 3.2 mm receiver is ready, but since north american aviation has not yet finished their antenna in columbus, ohio, the receiver is waiting for a home.

the 6 cm HII line receiver (20-channel), which will be used on the 140-ft by dr. mezger and dr. hoglund, is being torture tested by neil albaugh or rather it's torture testing him. do those muffin fans really hurt, neil?

david sun returned to v.p. i. by way of the new york world's fair. (ed. note: thanks for article you sent on the world's fair for the observer, david.)

receiver -

the receiver group is developing a back end for dr. low's millimeter wave research

program. they are also developing a parametric amplifier pump stablizer (what ever that is). the design work on the two wide band tunnel diode amplifier system is nearing completion.

maynard wooddell says, "If it's good enough for IPT it is good enough for me." When are you going to have your beach party, maynard?

fix-it-shop -

it looks like the guys from electro international are beginning to sound like they like the area around here.

ken is planning to get married and rent a house in bartow. we've all been trying to talk him in to it - or was that out of it?

sam has been spending his afternoons toiling in the soil for the past month. could the be a garden he is working on?

steve seems to have found a certain female interest between green bank and bartow. he has been warned about the girls around here but he still returns for supper.

vla by bob swensson

the planning stages of the nrao very large array are progressing slowly but surely. the location of the array will be in the u. s. at a southern latitude, for example the southwest, in order to obtain increases sky coverage. the vla will consist of anywhere from 30 120-ft telescopes to 100 50-ft telescopes. the array will probably be able to work down to 3 cm wavelength and will operate on 2 frequencies simultaneously. the vla will be able to synthesize a beamwidth of 10 sec of arc at 11 cm wavelength. while

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our present interferometer can record around 1 flux unit the vla will be able to record on the order of 1/100 of a flux unit.

construction should begin in 3 years, with the first telescopes to be operational in about 5 years and the entire array should be in full swing in about 10 years.

two telescopes (an interferometer) result in one baseline. three telescopes (an array) like the projected array on the present baseline here, result in three baselines. the number of baselines increases by $1/2 n (n-1)$. for 100 telescopes, this means just less than 5000 baselines.

oh---membership to the aui-nrao-vla-ra are now on sale. for information contact bob swensson, box 2243, station b, v. p. i. , blacksburg, virginia.

birds' migration imminent

june 30 is the date when the birds will leave the hills of west virginia for a warmer climate in the south. dick bird, programmer in the computer group, and family will be leaving us for tampa, florida. dick will be employed by the general telephone company of florida. we wish him success with his new job and want him to know that it has been nice working with him.

erstwhile employee

i recently had a letter from joan crampin and she wrote, "Do give my kind regards to all my friends in green bank. . . "

dr. crampin has accepted a lectureship in mathematics at the university of

of reading (30 miles west of london) to start in october.

if you are thinking about writing to her, please do; i'm sure she would enjoy hearing from you. for her address, just give me a call on extension 230. carolyn dunkle

findlay vs beatles

what does dr. findlay have in common with the beatles besides nationality? both are members of the order of the british empire, the british counterpart of the american medal of honor. the award is given by order of the queen upon recommendation by the prime minister. a former squadron leader paul pearson sent his award back to the queen. he said he meant no insult to the queen but that he felt the queen had been tricked, and that the award had been "cheapened and debased".

hector dupis, a former member of the canadian parliament also returned his complaining that he had been placed on the same level as "vulgar nincompoops". dr. findlay said he hasn't returned his yet - he can't find it.

new board

the following board of directors of the nraora for the coming fiscal year was elected at the general meeting on may 25, 1965.

tom carpenter	ronnie monk
neil albaugh	warren tyler
carl davis	marvin dejong
linda friel	
jackie plyler	
paul devlin	
jim ryder	
jim dolan	

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there were 28 people at the meeting out of 104 members. it seems that there are a lot of members who are concerned about getting their money's worth out of the recreation association, but not too many who are concerned about fulfilling their responsibilities as members.

was then taken to the hospital in elkins, and our boys returned home for some much needed sleep.

the observer commends neil albaugh, bob swensson, and jeff dunbar for their courage and unselfish actions.

new employees

the observer welcomes these new faces to nrao:

- ralph graham telescope operations
- ray byrd works area
- hugh jackson works area
- kenneth vance recreation instructor
- charles rightmire tourist information
- nadine harrison visitor receptionist
- frank bash scientific staff
- harold crist telescope operations
- barry turner electronics
- harlen tallman bus driver
- kenneth kellermann scientific staff
- bill sheets engineering
- roland von hoerner works area
- boyd wright telescope operations

callender leaving

regret sounded throughout many parts of the observatory when the word was officially made public that mr. frank j. callender had resigned as business manager of the observatory. we feel his leaving is a great loss, both individually and to the observatory.

mr. callender came to the observatory in 1957 along with his wife and three children when the observatory was in its planning stages. he has seen it grow into a great scientific research center. now, as he would put it, "it's time to move on".

mr. callender has accepted a position with the university of hawaii and expects to take over his new duties sometime in july. we wish the very best for mr. callender and his family and, at this time, it seems only fitting to say "aloha" to the callender family.

rescue

around midnight on june 3, several nraora spelunkers caught wind of a caving accident. after inquiring, n. albaugh, bob swensson, and jeff dunbar went out to cassell's cave on back mountain road where a fellow spelunker had fallen and broken a foot and a shoulder.

the nraora cavers assisted members of the national capitol grotto rescue teams a six hour rescue operation in which the injured man (name unknown) was carried out on a stretcher. the injured spelunker

dear orlo,

several times while hiking around the green bank area i have been able to distinguish a large steel structure on the observatory site. this high landmark which can be seen from such great distances when nothing else on the site is visible must be very important. what is it?

signed:
hubert horatio hunter

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dear hub,

we're very proud of that landmark of which you speak. here at nrao it is known affectionately as the "the water tower".

orlo

dear orlo,

howcum you guys won't let anyone else use your airport? you selfish or some-thin'?

signed:
charles windbergh

dear charles,

it lessens the chance of an airborne invasion (or evacuation).

orlo

dear orlo,

the other night while i was on duty a man in a green gto tried to drive by the guard house on to the site. when i stopped him he became irritated so i made him leave and told him not to come back until he could control his temper. just thought i'd let you know we guards are on our toes.

signed:
gregory guard

dear greg,

you have did good.

dear orlo,

recently my name was removed for the mail boxes in the lab building. does this have any real significance that should cause concern?

signed:
m.i. dunn

dear dunn,

if you find your office moved to room 227 i would suspect that someone is trying to tell you something.

dear orlo,

how far is it from green bank to charlottesville?

signed:
an employee

dear employee,

that depends on your place in the pecking order.

orlo

the wisdom tooth

men who have excessive faith in their theories or ideas are not only ill prepared for making discoveries; they also make poor observations.

claude bernard

genius may have its limitations but stupidity is not this handicapped.

elbert hubbard

if a equals success, then the formula is a equals x plus y plus z. x is work; y is play; z is keep your mouth shut.

albert einstein

the size of a man can be measured by the size of the thing that makes him angry.

j.k. morley

a man has made at least a start on discovering the meaning of human life when he plants shade trees under which he knows full well he will never sit.

elton trueblood

ads

john parker please come home. we all miss you.

the old gang

for sale

swedish built mini-piano. excellent tone and workmanship.

contact: bertil hoglund
456-4419

glenwood gas stove, four burners, two ovens, broiler, warming oven. vintage 1920. uses bottled gas or city gas. \$15. available about september 1, 1965.

wards oil space heater. heats an average house by itself. \$45. available now.

contact: carl heiles

note from typist - all material is typed as given to me. nothing is changed.

for sale

nine weeks old collie puppies, all females. \$3.00 each.

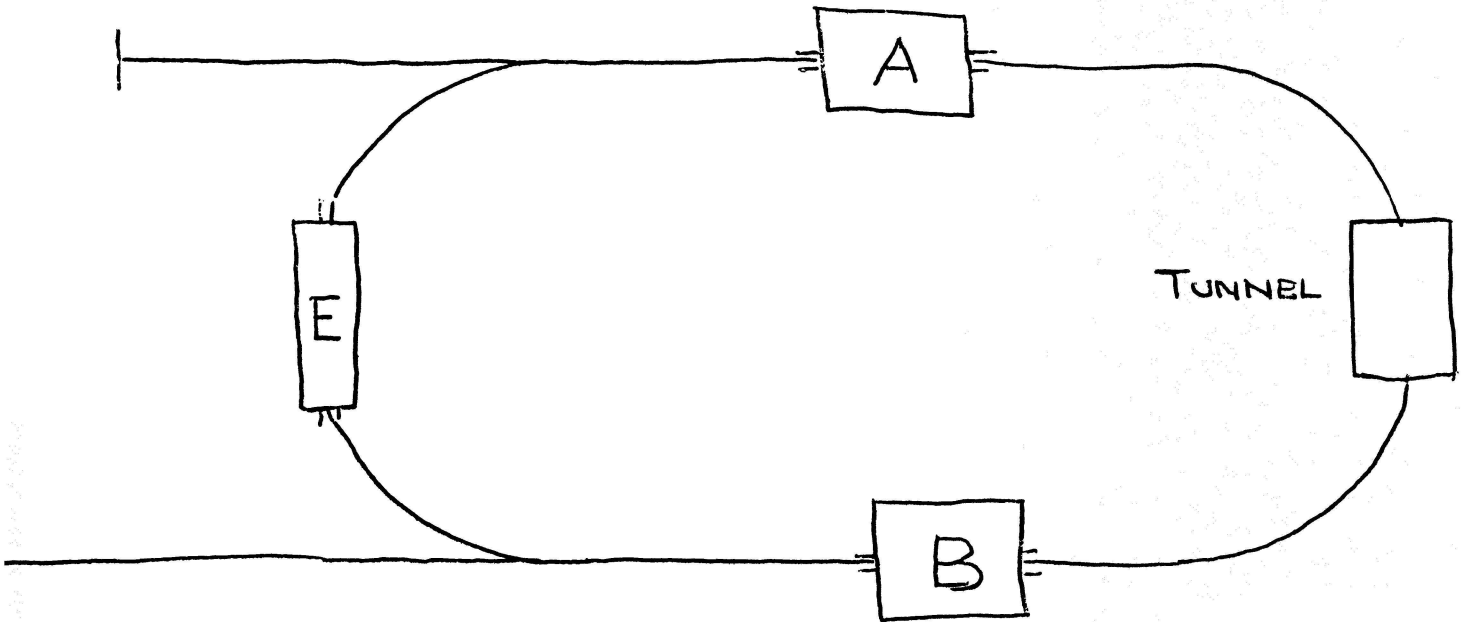
contact: scottie ext. 216
456-4380

ladies' tea

the ladies' tea will be wednesday night, july 14, 1965 at 7:30 pm, at the residence hall lounge. hostesses are: carol van horn, joann williams, and gladys (bunny) vance. all of the ladies that work on the job are invited,

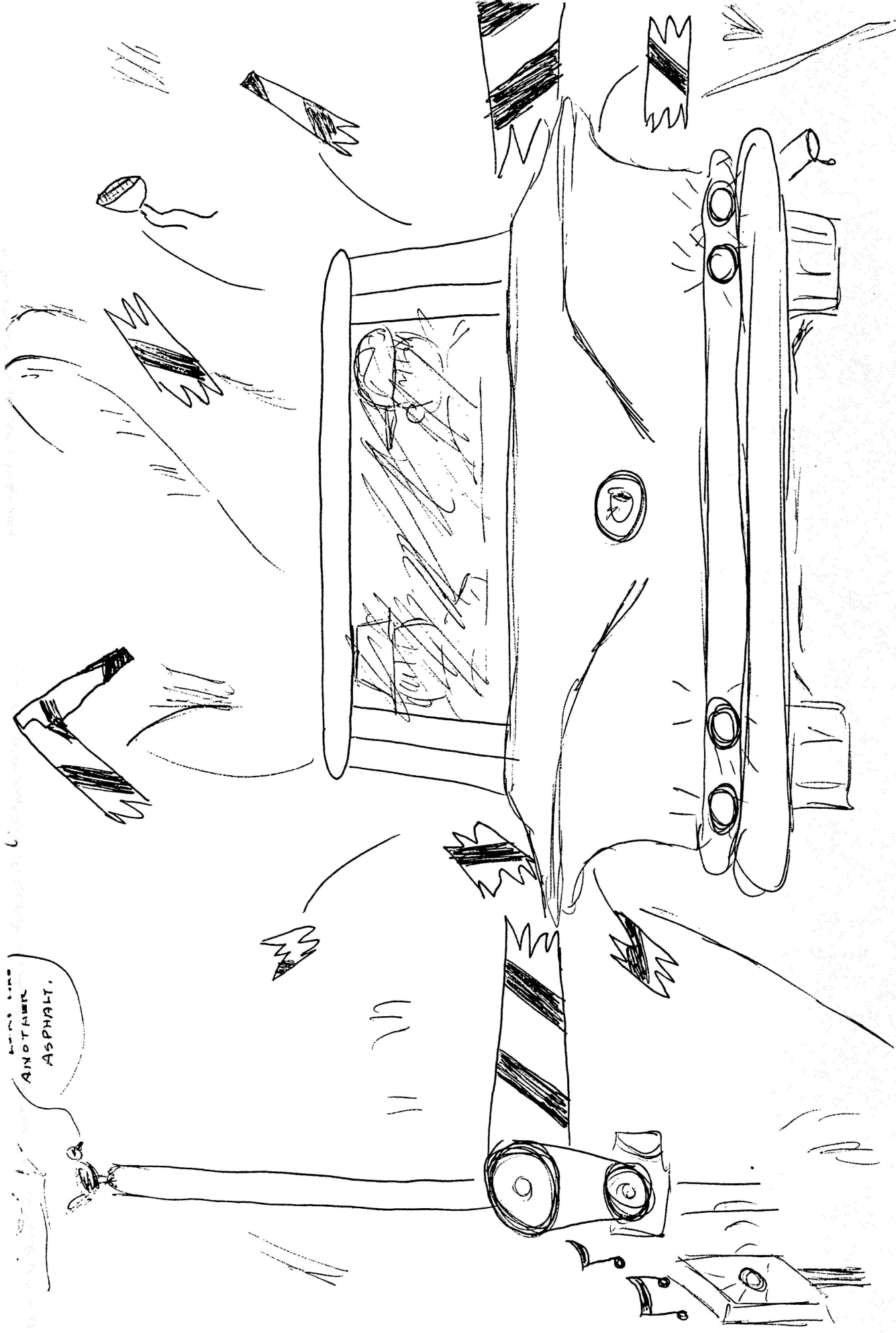
i want to thank each and everyone of you for your thoughtful help and offers to help during my hospitalization and recuperation at home, and especially for the many many cards and letters, visits, telephone calls, flowers, transportation for both my wife and me. we are very grateful to each of you.

merritt m. gum



problem

engine e must put car a in place of car b and vice-versa and end up between the two cars on the same end of the loop where it started. the engine can go through the tunnel, but the cars cannot. if you were the engineer, how would you do this? 500 divided by the number of minutes it takes you to figure this out is your i. q.



FAMOUS LOST WORDS:

THAT GATE NEVER COMES DOWN.

by *Gregory*