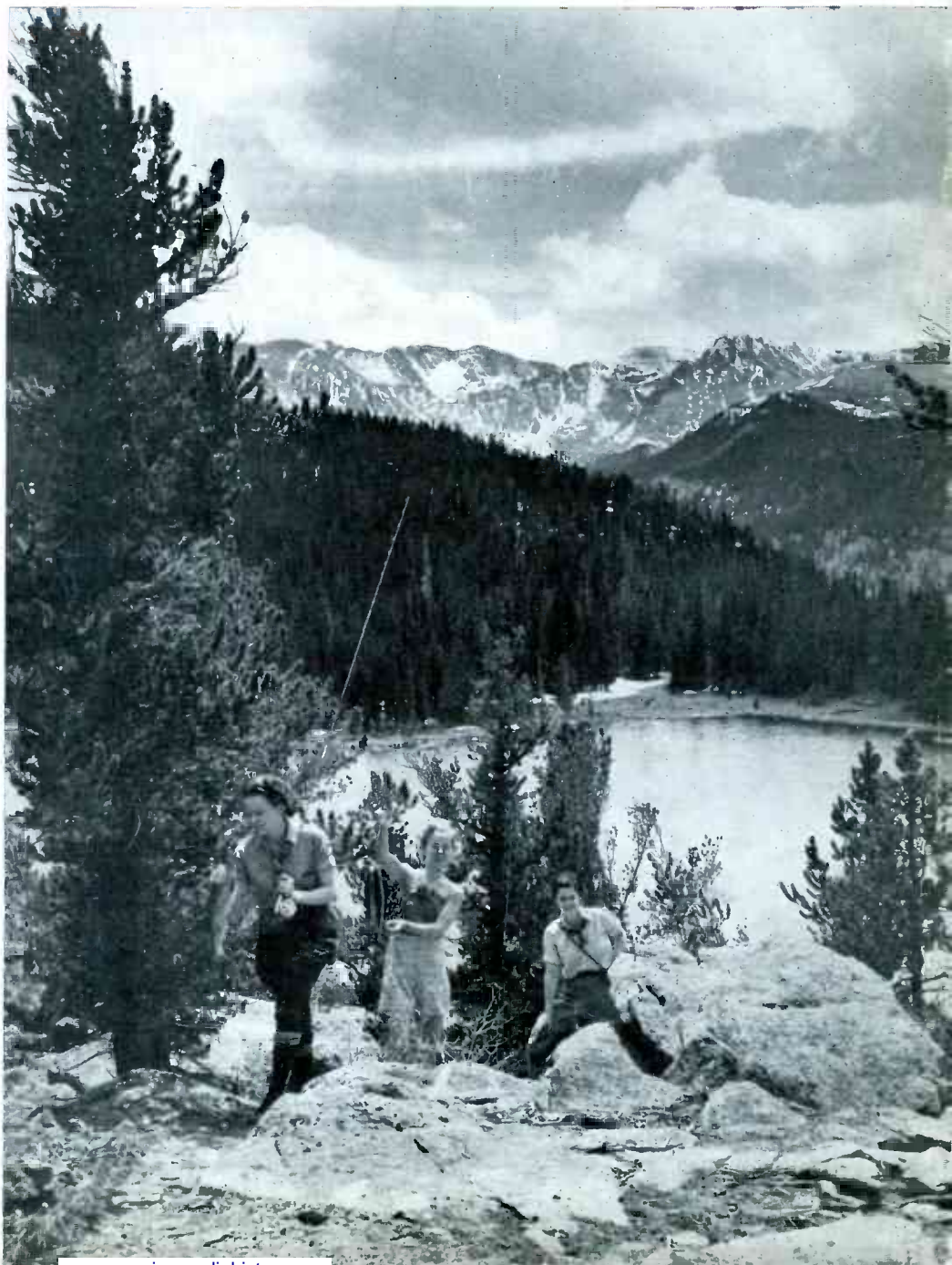


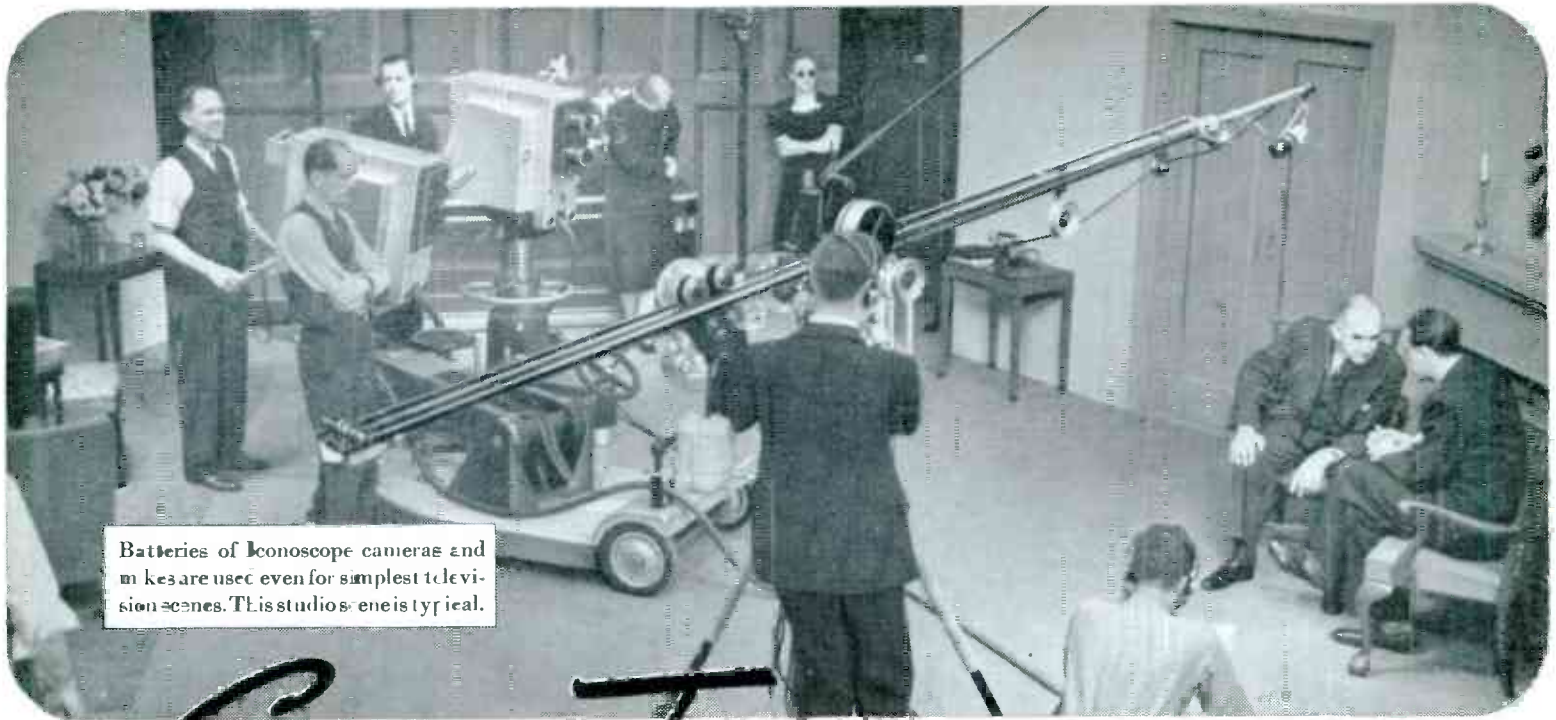
WATERFALL

AUGUST

1939

*Echo Lake and Mt. Evans
Denver Mountain Parks*





Batteries of Iconoscope camerae and mikes are used even for simplest television scenes. This studio scene is typical.

Curtain Time FOR A NEW AGE OF ENTERTAINMENT



NBC Mobile Television Unit for outside pick-ups—The equipment is carried in two 10-ton trucks.

Programs by NBC to match the progress of Television

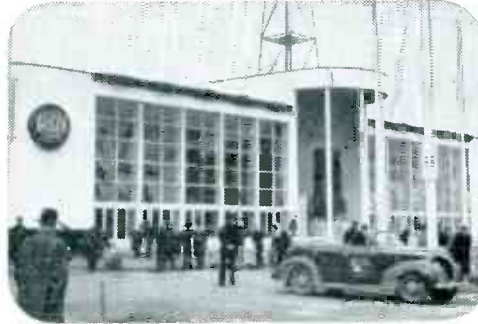
While RCA has concentrated on the technical aspects of television, NBC has studied another phase, the programming of television.

To produce television programs calls for intricate techniques. Practices are unique, and differ from those of radio, the stage or the movies. Progress has had to be largely by the trial and error method. NBC has devoted great effort, much time and a large outlay in money to the development of programming.

NBC pioneered many of the program forms which are today accepted standards of radio broadcasting. The same spirited leadership will characterize the further activities of the National Broadcasting Company in the new art of television.



This miniature model of a small city being built in NBC studios, will appear full-size when televised.



RCA Building at New York World's Fair. Visitors will see all the services of RCA including television.

NATIONAL BROADCASTING COMPANY

THE WORLD'S GREATEST BROADCASTING SYSTEM

A Radio Corporation of America Service

**HERE ARE TWO
VALUABLE NEW
IMPROVEMENTS
FOR YOUR
PRESTO
RECORDER**



↑
Presto Vertical Damper—Holds the groove depth and width absolutely uniform. Completely eliminates low frequency flutter and patterns due to mechanical vibration or surface irregularities in the disc. Improves both the quality and appearance of your recordings. Can be added to any Presto 6-D or 7-B turntable at very nominal cost.

↑
Presto Spiralling Feedscrew—Enables you to make starting and run-out grooves or to space recordings of music and announcements on your electrical transcriptions without breaking the continuity of the groove. Any Presto feedscrew furnished with the 6-D or 7-D recorder can be converted to a spiralling feedscrew at moderate cost.

Send us the model and serial number of your recorder. Let us quote you on adding these important features to your equipment.

PRESTO RECORDING CORPORATION
242 West 55th Street
New York, N. Y.

THE NEW DAVEN TYPE No. 910

**VOLUME LEVEL
INDICATOR**



It is designed to indicate audio levels in broadcasting, sound recording and allied fields where precise monitoring is important. The Type 910 unit is completely self-contained, requiring no batteries or external power supply. The indicator is sensitive to low power levels, rugged and dependable.

The indicator used in this panel is the new WESTON Type 30 meter, the dynamic characteristics of which have been approved by BELL TELEPHONE LABORATORIES, N.B.C. and COLUMBIA Engineers. The indicator reads in percent voltage and VU. The "VU" is defined as being numerically equal to the number of DB above 1 mw. reference level into 600 ohms.

Two meter controls are provided, one small decade with screw-driver adjustment for zero level setting of the meter pointer; the other a constant impedance "T" type network for extending the range of the instrument in steps of 2 Db.

Because of the length of the meter scale, small differences in pointer indications are easily noticed. For this reason the screw-driver type vernier is provided. All V. I. meters can thus be adjusted to the same scale reading. This is particularly convenient in complex installations where several V. I. meters must be read by one operator, or in coordinating the various meters at different points in a network.

SPECIFICATIONS

- ★ INPUT IMPEDANCE: 7500 ohms, constant on all steps of meter range switch except on the 1 mw. calibration step.
- ★ POWER LEVEL RANGES: Standard 1 mw. at 600 ohms reference. See table below.
- ★ FREQUENCY RANGE: Less than 0.2 Db. variation up to 10,000 cycles.
- ★ SCALE READING: Meter calibrated -20 to +3 VU and 0 to 100%. "A" Scale, for broadcasting work is marked in percent on the upper scale.
- ★ INDICATING METER: Copper-oxide-type adjusted for deliberate pointer action. Large clearly marked scale.
- ★ METER RANGE CONTROL: Heavy duty "T" network. Input impedance 7500 ohms; Output impedance 3900 ohms. Attenuation variable in steps of 2 VU.
- ★ METER ADJUSTMENT CONTROL: Miniature step-by-step decade type unit. Designed for fine adjustment of the zero level reading over a range of ±0.5 VU.
- ★ TERMINALS: Screw type lugs.
- ★ MOUNTING: Standard relay rack mounting, Aluminum Panel 5¼ x 19".
- ★ FINISH: Black aluminite, dull satin finish; R. C. A. or W. E. gray.
- ★ NET WEIGHT: 3½ lbs.

Units calibrated 6 mw. across 500 ohms available upon request. NOTE: Unless otherwise specified, meter range controls will be supplied turning counter-clockwise for decreasing attenuation.

TYPE No.	RANGE	ZERO LEVEL	SCALE	PRICE
910-A	1 mw. + 4 to 40	VU off 1 mw. 600 Ohms	A	\$65.00
910-B	1 mw. + 4 to 40	VU off 1 mw. 600 Ohms	B	65.00
910-C	1 mw. + 4 to 24	VU off 1 mw. 600 Ohms	A	60.00
910-D	1 mw. + 4 to 24	VU off 1 mw. 600 Ohms	B	60.00

158 SUMMIT STREET

THE DAVEN COMPANY

NEWARK, NEW JERSEY

MANUFACTURERS OF SINGLE & DUAL POTENTIOMETERS, SPECIAL ROTARY SWITCHES, FILAMENT RHEOSTATS, MIXER PANELS, VARIABLE & FIXED ATTENUATORS, FADERS, RF SWITCHES, VOLUME INDICATORS, OUTPUT METERS, LINE EQUALIZERS, ATTENUATION BOXES, MULTIPLIERS, SUPER DAVOHMS, LABORATORY EQUIPMENT, SPEECH INPUT CONTROL APPARATUS, DECADE RESISTANCES, RESISTANCES, DAVOHMS, GAIN SETS, AND OUTPUT POWER METERS.



The lovely features of Helen Walpole, NBC actress, illuminated by a battery of Birdseye Reflector Lamps for a close-up shot in NBC's experimental television studio.

WHEN experimental television broadcasts first went on the air from NBC's studios in Radio City, find a means of flooding the television sets with the intense light necessary to place a brilliant image on the plate of the iconoscope. But the light had to be more than strong. It had to be easy to direct . . . it had to be easy to change . . . it had to be efficient.

RCA's engineers have selected Birdseye Reflector Lamps as the soundest solution to television's lighting problem. Here, in a single inexpensive unit, they found a superb light source and an efficient reflector—for Birdseye Lamps are silvered on the inside and direct the light where it is wanted without the use of external reflectors.

Wherever controlled light is required, Birdseye Reflector Lamps will cut lighting costs and substantially increase lighting levels. Clarence Birdseye, the originator of Inside-Silvered Reflector Lamps has perfected an inside-silvered, self-contained unit for every lighting need. Investigate this modern illumination today.

BIRDSEYE REFLECTOR LAMPS

Inside - Silvered *Self - Reflecting*

100 East 42nd Street - New York



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Broadcast Station Engineers

RCA Victor



"Pick-Me-Up" Radio

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A Message of Thanks to NBC Engineers

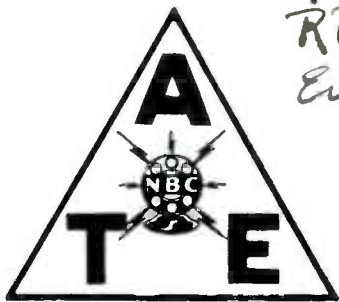
On this occasion of our third anniversary, we are taking the opportunity to offer our sincere thanks to our friends at NBC for their valued patronage. We are particularly grateful for the cordial reception you gave our new radio supply house at 68 West 45th Street. This store will continue to offer the complete solution to all your radio requirements, including top-notch values in ham equipment, broadcast receivers and records.

Our policy as radio specialists, to carry only radio products and to direct our efforts solely in the radio field, will be maintained.

TERMINAL RADIO CORP.

68 WEST 45TH STREET (near Radio City)
80 CORTLANDT STREET, NEW YORK CITY

Phone: VAnDerbilt 6-5050



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JOURNAL



VOLUME 6 ISSUE 8

AUGUST 1939

Once More Whither Television ????

Several months, millions of headaches, and hundreds of hours of hard work have trickled over the dam since the writer last attempted to give his fellow ATE members some idea of the happenings in this newest of radio fields.

April 30, 1939 marked the opening of the New York World's Fair and the beginning of the RCA-NBC regular television program schedule. The opening ceremonies at the Fair featuring the address of President Roosevelt were broadcast by sight and sound (that word "telecast" is still distasteful) and the entire opening day of television was a mammoth success.

During the month of May interest in this thing called television ran high. Sets were sold to the public and executives, Engineers and producers were enthusiastic about the new owner's reaction to television. At the RCA Television Exhibit at the Fair there was always a long line of inquisitive folk waiting to see the latest in home entertainment gadgets. The reactions of these viewers were interesting in that the majority were pleased, a few skeptical and a small minority disappointed.

For five hours, five days each week films were broadcast from the Radio City studios via Empire State to the viewing room in the RCA exhibit at the World's Fair grounds. On Wednesday and Friday evenings from 8 to 9 P. M. live talent and films were broadcast for the public. Dealers used the film broadcasts during the day for the demonstration and installation of receivers and generally had their stores overrun when they remained open for the evening hour broadcast.

This month of May saw the first television nemo pickup sent to Radio City by telephone lines from Madison Square Garden. The broadcast as a whole was below standard due to poor lighting, but the fact remains that the pictures were transmitted over a regular telephone cable "pair" and arrived in the Radio City control room none the worse for their mode of travel. One more step in the development of television transmission was now a reality due to the cooperative effort of Bell, A. T. and T. and NBC engineers.

Once a day press news was added to the schedule late in the month and the studio programs showed definite improvement.

On May 27th and 28th the ICA Track and Field meet was broadcast from Randall's Island with exceptional success and it was generally felt that the Television Mobile Units were stealing the show, which undoubtedly they were.

May also witnessed the very successful broadcast of the Memorial Day parade from Riverside Drive. This program was transmitted via the Television Mobile Unit transmitter di-

rect to Empire State and rebroadcast on the regular television frequency from here.

June 1st marked the broadcast of the first heavy weight prize fight ever seen on television and reports from all sources indicated that the adventure was a most outstanding success.

Throughout the month of June several very good shows were broadcast from the World Fair via the Mobile Units. These shows were interesting in spite of the very severe handicap of having only one camera available on the Mobile Unit pickups.

During June the live talent shows from the studio in Radio City showed signs of improvement and while there were definite "flops" the general trend was for the good. Also during this month the heavy voice of the public saw the discontinuance of the film schedule in which films were repeated several times each week. Dealers, set owners and anybody even remotely interested objected to this procedure. Dealers said that several prospective set owners had been soured on television because they saw the same film on two separate days while looking at their receivers. The total reaction was definitely against ever repeating a film on the air.

The installation of the second demonstration camera at the RCA Exhibit at the World's Fair took a heavy burden of programming from the Radio City Studios and the Mobile Units allowing greater rehearsal time in the studios and some time for experimental work on the studio equipment. The time allotted for motion pictures was greatly reduced and all films were limited to one showing on the air.

Feature pictures began on the schedule in July and to date at least two really entertaining pictures have been shown, namely "Peg of Old Drury" and "The Adventures of Chico." While the other features have had a definite entertainment value there were many who did not like them and were quick to voice their disapproval.

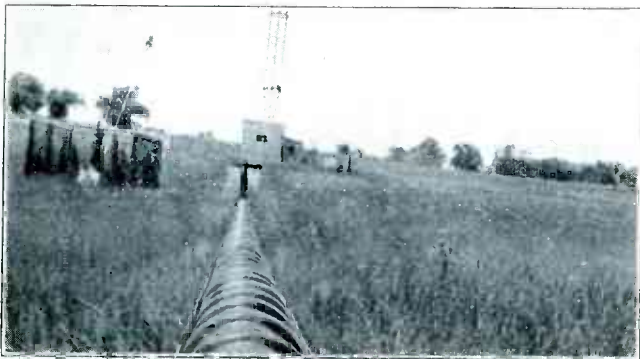
Short films are still used during the noonday broadcasts and as before they consist mostly of commercial pictures made by or for some company to advertise some product or to stimulate tourist travel. Many excellent travel pictures have been presented featuring many parts of the world and in the same breath there have been many poor reels too.

In the studio the outstanding performances to this writer's way of thinking have been the "Pirates of Penzance" and "Missouri Legend". The one a Gilbert and Sullivan opera and the other a story of Jesse James. Large casts were used in both and

continued on page 16

CLEVELAND

by F. C. EVERETT



WTAM's transmission line, the newest style, made with solder less couplings is now prosaically covered. Pipe shields it from damage from above and salt spread below is killing the vegetation to prevent grass fires from reaching the line.

W. C. PRUITT, SE

who is now sporting a beautiful lawn has been heard to admit that he used 32 pounds of grass seed, and of that amount 30 pounds was intended to keep the birds from eating the two pounds that would be necessary to grow the lawn.

J. A. CHEEKS, TE

found that his license could be renewed for both telephone and telegraph with only the code examination if he acted before the new regulations went into effect. Making a holiday of it, he loaded the family and the car into the D & C Cruiser "Western States" and made a patrol to the RI at Detroit. Most of the night trip was spent up in the static room with Sparks. Among the interesting things brought to light was that the skipper of aforesaid vessel was an hamachewer, and operates when in port under the call of W8VU on ten meters. P. S. Cheeks passed the exam.

C. S. BIDLACK, SE

has purchased a house in Lakewood and is rapidly preparing it for occupancy. A recent purchase of bicycles for both children has necessitated constant repairs by "pop", as the various gadgets became loose and tires flattened on the bottom.

G. E. MAKINSON, TE

has his wind-ravaged tower rebuilt, complete with a three element beam, motor drive and electric direction indicator. After a long tuning procedure, happy DX results are beginning to come forth. He desired to make a few soldered connections—incidentally with the iron and solder at the end of a seven foot pole, so he decided to run the 110 volts out on the transmission line. However, he calculated without the antenna relay and the stuff on the other end of the loop and presently found that he needed a new antenna ammeter and new primaries on his 20 meter receiver coils.

J. F. HACKETT, SE

is a bachelor since he sent his young son and wife east to New

York on the plane. This is the little shaver's second trip on the winged horsepower, so he should be quite accustomed to the modern world. United Air Lines furnished the baby food, and all accoutrements.

A. H. BUTLER, TE

still remains the Nimrod of the transmitter. Practically every day finds him in the woods or fields and he has a collection of 80 to 100 crows feet. Recently he yielded, as all of us do, to the lure of new equipment and taking some old guns and beaucoup cash scraped off the bottom of the barrel, he turned them all in for a shiny new super dooper shotgun, with hot and cold demountable barrels.

H. B. CASKEY, SE

has acquired a new outboard motor in preparation for a trip into Michigan. Extensive experiments have been conducted with the motor to see if it would work. Halfway across Sandusky Bay it began to percolate on one lung, so he and F. E. WITTAM, SE, proceeded to take it apart. Taking apart evidently was not what it needed for they limped gradually into port and had a serviceman fix the motor. They nearly had to row in with pingpong paddles.

A. B. STEWART, TE

hurried back from his vacation trip of some thousands of miles only to pick up a traffic ticket in Cleveland, for failure to make a boulevard stop. The judge delivered an oration that should have been worth at least \$50., but finally said, in effect, "Three dollars please." One of the well known announcers was among those present in the audience, same charge. Said announcer read the talk on safe driving over the air that afternoon.

T. C. COX, SE and B. C. PRUITT, SE

are among those who have been searching the waters of lake Erie and similar spots for fish. Cox must have stood out like a sore thumb as the only engineer in that gang of musicians who had their hooks out for the subjects of ichthyolatry.

H. A. WALKER, TE

is the gardener this year, at least as far as the transmitter is concerned. He has a large tract of land laid out and planted, including some rare comestibles for these parts, such as black eyed peas, peanuts and yams.

J. J. FRANCIS, SE

is still pegging away on his backyard yacht. He says it takes an evening to put on a plank and then one has to wait until payday to buy another plank. However, we understand it is nearly ready for christening, and maybe we'll be able to enjoy a cruise yet this summer with Captain, Admiral, Commodore Francis.

H. L. CLARK, TE

also hurried to renew his license under the old terms and conditions before the new regulations went into effect. He too made a holiday of it, visiting relatives in Buffalo and received

continued on page 16

KFI-KECA

by H. M. McDONALD

NEW FREQUENCY FOR KECA: The sale of KEHE by Hearst Radio, Inc., to Earle C. Anthony, Inc. owner of KFI - KECA, has finally been approved by the FCC. The deal has been pending for many months. KECA, outlet for the Blue in Los Angeles, 5 KW days—1 KW nights, in an excellent location with a new 5C transmitter and a vertical radiator, has been handicapped with a poor frequency, 1430 KC. With the purchase of KEHE, 780 KC, KECA will use that frequency and the call KEHE and the frequency 1430 will probably be abandoned. 780 is an excellent frequency here and we expect to go over big with it. Purchase also includes their new centrally located building housing six studios, and a new 5C transmitter and site some five miles away. Disposition of the extra transmitter and site has not been announced.



THUMBNAIL SKETCH:

Lloyd M. Jones, born and raised in California, up in that part of the great San Joaquin valley near Yosemite. Lloyd started in radio with an ear splitting 1 KW spark back in 1920 and two years later commenced making his living as "Radio Officer" on merchant ships. No excitement there though so he joined the Navy where, as radio operator-observer in planes being catapulted from the U. S. S. Idaho at sea, he got thrills a-plenty. After his hitch for Uncle Sam he

entered the broadcast end of radio, through KFSD in San Diego and came to KFI - KECA about seven years ago. His hobby is "ham radio in all its phases". If you haven't heard W6DOB you don't listen on 10 and 20. 1 KW, ECO, 3 element rotary antenna; NC 101X receiver; excellent location. Here's a picture of him taken by himself. Evidently he can't count the seconds and smile at the same time because his stern expression here certainly belies his sunny disposition. DX hounds: Note: those QSL cards.

STRAY FACTS: Scanning the "tickets" of the 27 men in our engineering department here we note that there are 27 First Telephone, 14 First Telegraph, 10 Second Telegraph and 3 no telegraph.

Snooping further we learn that only 7 of the 27 are natives of California; 3 are from Wis., 2 from Okla., 2 from Ill., one each from Mo., Pa., Minn., Tex., Ida., Nebr., Ia., Mass., Colo., Ind., Ohio, Kans., and Brit. Col.

PLUG: Speaking of distant States, we heard a nice compliment paid to Glenn Webster (Chi) on a National Farm and Home Hour pgm. a short time ago when all those present from the Sunflower State (Kansas) were being honored.

ARCHERY vs GOLF: Charles "Archer" Young he's known as these days. A few weeks ago while showing his 9 year old how to use a "bow 'n arrow," the archery bug bit Charley. Now

he's using a six foot 42 pound bow, made-to-order arrows, and planning to make his own equipment. Says better stance, balance, coordination, and more skill, required in archery than in golf. (You argue with him—but don't bet; he wins every bet he makes.)

JACKPOTS: Harold Christensen up with the dawn and out to sea with a fishing party. Caught only one fish but it was the largest landed by any of the party and therefore took the jackpot. Dueces wild on the homeward trip also helped swell the bank-roll. Net for the day: one fish and \$16.50.

UP CAPE COD WAY: We hate to admit it but there is also good fishing on the East coast. Bill Edwards, just back from a 9200 mile auto trip, relates that while at his old home town, Chatham, Mass., he went out with a friend of his who fishes commercially and between the two of them they caught 800 pounds of cod in a day. Next day the other fellow caught halibuts weighing 140 and 151 lbs. Fraid that beats us.

POOSH 'EM OUT: In the recent ARRL Field Day, George Tokar, in charge of a group of four, operating a portable at Newport Beach, with the call W6NIK, ran up a score of 1800 points, 800 more than last year when the same group were first in the Sixth District. They used a V beam on 20, 2 v's on 40 and a half wave on 80 and 160 and less than 20 watts on all bands; phone on 160 and CW on the others.

CHESS: After suffering several defeats at the hands of the Hollywood boys at baseball, Bryan Cole decided we'd better try another game so he organized a chess club within our studio staff. After a few eliminations a team was picked and a tournament arranged with Hollywood. We emerged victorious, 2½ to 1½ games. Blatterman, Johnson, Rodriguez and Evans represented KFI - KECA; Wagner, Andrews, Petry and Lorenz for Hollywood. Cole couldn't make the team so he serves the club by arranging matches. He suggests games by mail between NBC men in all cities.

Bulletin: Just heard that the teams met again last night and we again defeated them 3 to 2. Lorenz is reported to be the best player on Hollywood team.

BRING YOUR TACKLE: Floyd "Pop" Everett is returning to Lake Mary again this year for his vacation. If you're in that part of the High Sierras between August 15 and 31 look him up. He knows the hideout of every Rainbow in the Lake and he's taking a "kicker" along for a boat. Lake Mary is in the Mammoth Lakes District, Mono County.

PRODUCTS OF RCA: Lyman Packard reports that an 857B rectifier tube just taken out of the 50 KW was in service 13,586 hours and that an 862 (50 KW) has been in service more than 14,000 hours and is still going strong.

STONE TRANSMISSIONS: Been response from as far away as Hawaii to our announcement of transmission of audio tones over KFI at 12:01 each Sunday morning. Good chance to see whether your broadcast receiver is all it ought to be. Seven frequencies from 40 to 8000 cycles, each announced and of one minutes duration; 640 kc.

E n d .

CHICAGO

By
F. C. Shidel

Paul Clark, W9BG, now in new house in Niles Center . . . Has planted some trees for future antenna purposes . . . 500 watt phone rig for sale in the meantime . . . Ab Falter is negotiating for a star racing boat . . . Russ Sturgis studying racing forms very religiously, also has plans for a thirty-three foot tower to support a rotary . . . Bill Cole getting Rotary bug but waiting for cooler weather to do the actual work . . . Vern (in the groove) Mills back from vacation in the west, visited boys at KOA . . . Horstman now on vacation, one week to be spent on ATE work the other two relaxing . . . he has been so busy this spring and summer with ATE duties that his golf game has suffered severely and he has to hire a boy to mow his lawn . . . Abfalter was appointed acting secretary during sec. Platz's vacation . . . The Bob Whitnabs house hunting in Elmhurst, hope they land as we need more NBC families in Elmhurst to get that company man for mayor . . . Ray Bierman and family spend vacation at Twin Lakes, Wisconsin . . . They like the place so well they go there every year . . . Chas. Butler, the gentleman from Hyde Park, planning on visiting the Cape again during his vacation . . . Charlie was out there during the big blow last year . . . Jim Thornbury going to New York to take a quick look at Radio City and the Fair then west to his favorite dude ranch in Wyoming . . . Knight staying home mostly but is breaking away for a short trip to Rock Island Arsenal . . . Pick me out a good bomb proof shelter too . . . Al Eisenmenger

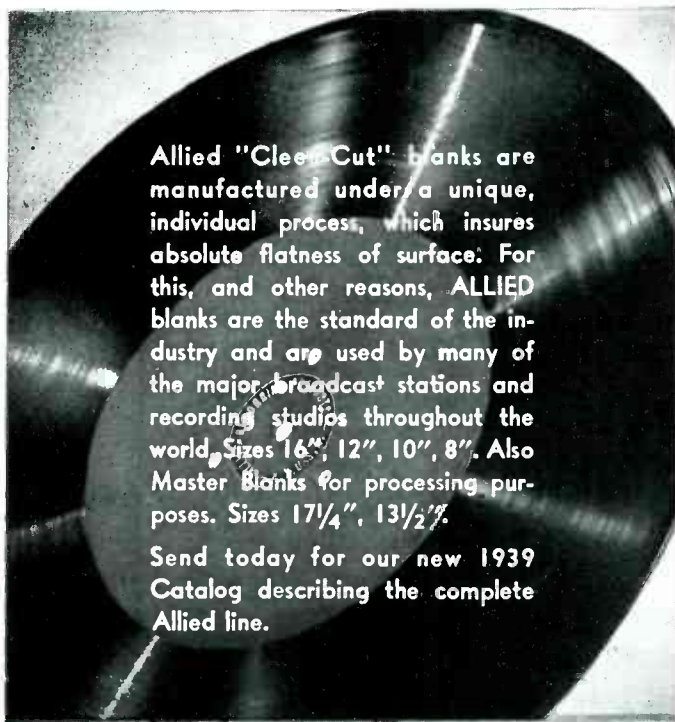
back from trip thru Maine and a quick look at the New York Fair and Radio City . . . Dave Kempkes vacationing, as usual, in Northern Minnesota and Canada lake regions . . . Took along a Johnson twin 2 1/2 hp motor to do the paddling . . . I wonder if Dave needs a schedule up there in the woods? . . . Russ Sturgis, a native of Cape Cod country, has just finished reading "Cape Cod Pilot" and says that he learned some things about his home town of Barnstable that he did not know . . . Mingle to Buffalo for a visit with relatives . . . Lonie spent vacation in Wisconsin fishing . . . Maule travelled through Indiana, Kentucky, Tennessee, the Carolinas, etc. finally reaching New York for a look at the Fair . . . Fitzpatrick stopped in New York on his way to visit relatives in Providence . . . McDonnell stayed at home and spent some time figuring out parlays . . . Ahlgrim spent some time at the New York Fair during trip thru the east . . . Forgash looked at the big Smokies while journeying to Florida as did A. R. Johnson, ASC. Engineer WENR - WLS on his way to Pittsburgh . . . Bombaugh took a look at the offerings from the west coast at San Fran., L. A., and Hollywood . . . Pickett and Morris of Hollywood visited old friends in Chicago . . . It's Joe (Short Circuit) Alusic now since Joe tried to go on from a nemo spot with line short switch on . . . Maro Roystons postcard from San Fran. that it agrees with them out there.

The Bon Air Country Club, Wheeling, Ill. was the scene for Chicago NBC's Second Annual Outing, June 22nd. Athletic events were arranged by the various NBCCA chairmen. Golf, swimming and softball were the most popular. After the dinner prizes were awarded and a few choice words were delivered by S. N. Strotz, Central Division Manager and Merritt Schoenfeld, NBCCA president. Ralph Davis, relief sup., won a box of golf balls for shooting par on the tough 9th hole. The whole course was tough for a lot of the boys and the twelve water holes were well shot up with nice new balls. Davis also won a place in the five-way tie for handicap winner but lost in the draw. He came back strong to win a free suit cleaning as a door prize which offset the soaking he received during the short but potent shower during the afternoon. Ed Horstman won a swell looking ladies vanity as a door prize, Dutton, three pounds of coffee and a box of golf balls and Washburn an electric razor blade sharpener. Washy says the gadget does a swell job of demagnetizing watches too.

ON THE STUDIO BEAT

Race fans around NBC's New York studios are placing their money on Organist BILL MEEDER whose thirty-five commercial programs a week make him a championship contender in the Music-Makers' Marathon Handicap. Betting has even discounted the running starts conceded to singers who warble "All Through the Night" and bandmasters who play "The Stars and Stripes Forever."

NBC Production Manager AUSTEN CROOM-JOHNSON insists that there is no truth to the whispering campaign that he will be a dark horse in that race. He admits however, that he spends many hours a day at the organ console between program assignments.



Allied "Clear Cut" blanks are manufactured under a unique, individual process, which insures absolute flatness of surface. For this, and other reasons, ALLIED blanks are the standard of the industry and are used by many of the major broadcast stations and recording studios throughout the world. Sizes 16", 12", 10", 8". Also Master Blanks for processing purposes. Sizes 17 1/4", 13 1/2".

Send today for our new 1939 Catalog describing the complete Allied line.

ALLIED RECORDING PRODUCTS CO.
126 W. 46th STREET NEW YORK, N. Y.
Cable: ALLRECORD

SAN FRANCISCO

by TAD FULIWAY

VACATIONS . . . VISITORS . . . SHOWS . . . FOG . . .

Jefferson, Watson, and Palmer on vacation . . . Jefferson south to Hollywood and Catalina Island, Watson north to Lake Louise and Banff, and Palmer north to visit his old home in Victoria, B. C. . . . Fullaway back from the hot route—San Diego, Phoenix, El Paso, Chihuahua, Mexico, Grand Canyon, and Boulder Dam . . . Kolm back on the board from a vacation in Portland reporting that it rained all the time. Should be used to it for he was raised there . . . Dunnigan spent most of his at home chasing slugs in his garden . . . Sugg, Greaves, and Andressen to leave soon—Sugg for his place at Lake Tahoe, Andy planning a trip to Hollywood, while Greaves will visit Lake Tahoe and Hollywood . . . Dewing finally admits that while on his vacation he saw lots of bass in the Sacramento River and lots of suckers in Reno.

Interested to read in past Journals of various members bragging about the mileage run up on vacation. Prize, I believe, should go to the rambling Roystons of Chicago who are at present visiting both the New York and the San Francisco fairs. Speedometer should read well over eight thousand miles by the time they get back to the Windy City. Fullaway and Kilgore up to visit them one night while they were staying at the Hotel Sir Francis Drake in San Francisco. Kilgore up the next morning to take them on a tour of San Francisco. Our only regret is that they couldn't stay longer than the two days allotted to see San Francisco and the Exposition on Treasure Island . . . better come again soon . . . Another visitor was Bob Schultz of New York—out to attend the IRE convention. Any visitors are invited to get in touch with us here in the San Francisco Control Room. The address is the 22nd floor of the 111 Sutter Building and the fone is SUTter 1920. Due to the present crowded condition of the hotels it might be a good idea to wire ahead and let us make reservations at the Sir Francis Drake Hotel. . . .

SHOWS . . . Kay Kyser . . . Artie Shaw . . . Benny Goodman . . . Swingsters Andressen, Jacobs, and Morrison going nuts . . . finally a studio ork origination at the fair . . . Charlie Norman up from Hollywood to do the Kyser show . . . McElwain on the Shaw show, and Jacobs in seventh heaven on Goodman. Kyser experienced much trouble sandwiching his air show from Treasure Island between his stage shows at a local theater . . . just made broadcast time and was late getting back for the theater show . . . so Artie Shaw decided to have air shows at Community Playhouse in city instead of in larger hall on Treasure Island . . . One Man's Family and Mystery shows with complete casts as well as announcer Dresser Dahlstead up from Hollywood for the summer. Cast and announcer all ex San Franciscans and glad to get home on vacation . . . Dewing handling the "Mystery" and Fullaway on the "Family."

FOG . . . Yes—we have it. While the rest of the country swelters in the summer heat San Francisco enjoys summer maximums around sixty degrees . . . amazing thing is that those who want heat can get it by driving inland a mile or so . . . virtually tailored weather.

HAMS . . . Parkhurst has a new receiver, home built . . . skeds a KD6, Pan Air operator on Midway Island weekly on forty . . . Parkhurst also replaced 807 final with 809 . . . keys by breaking 809 grid bias lead . . . Morrison working K6 and others with new mobile ten meter rig in his car. Drives along at thirty (we hope) and tells them about it . . . also has

finished erecting new tower in back yard to hold his new directional squiter . . .

MARRIAGES . . . Summer weddings . . . Fullaway; Bob Anderson, news announcer; Jimmy Mathews, announcer; Bob Sandstrom, traffic; and Monty Margetts, actress. Sugg performed as Fullaway's best man . . . Brooke up from Hollywood to act as an usher . . . Berg celebrates fifteenth wedding anniversary on second of July.

ODDS AND ENDS . . . Sugg, after arranging four days off so he could tune up Cris-Craft at Tahoe for use during his vacation, had to spend them in bed with flu . . . Andressen back after several weeks spent in hospital . . . Engineer-in-Charge Peck in New York at engineers conference . . . Marion Hansen, secretary, counting days until her wedding . . . McElwain recently told Masonic lodge all about broadcasting while Summers told Oakland hams about NBC field equipment . . . Cassidy has built an intercommunication system between baby's bedroom and own room . . . if young son cries he can tell him to shut up and sing him to sleep without getting up . . . Dewing made recent trip to Marshall, Calif.—RMCA receiving station—and ran into Wayne Helfer, ex-chief on the old SS MAUI . . . Rothery still tending flower garden at home and also arranging for ATE "Ladies Nite" to be held 12 July at local dine-dance spot . . . little get together for gals and wives.

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The ATE Journal is a privately printed publication, issued by the Association of Technical Employees Publications, Incorporated, a corporation of the State of New Jersey with office located at 30 Rockefeller Plaza, New York City.

In the United States and Possessions: Fifteen Cents the Copy, \$1.00 the year (12 issues). In all other Countries, including Canada, Twenty Cents the Copy, \$1.50 the year (12 issues). Remittances from outside the United States by Postal or Express Money Order or by Bank Draft, payable in United States Funds. All prices subject to change without notice. All subscriptions must be paid for in advance.

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WOR

By
R. A. SCHLEGEL

Sunshine . . . beach parties . . . sunburn . . . picnics . . . motor trips . . . vacations . . . cool nights . . . haven't had a day when the sun didn't shine. (California papers please copy). No complaint on the weather in New York this summer, it certainly has been all that Grover Whalen and the fair officials could hope for . . . We're conducting experiments with Japanese beetles in an effort to get them to eat only the weeds and crab grass and thinking seriously of installing irrigation systems for our lawns so that they will stay green instead of turning a tawny yellow which is the California name for dry grass. If it doesn't rain soon, we'll have to post the suburbs with "NO SMOKING" signs similar to those signs we have seen in the Hollywood hills.

On July 8th, the annual Bamberger Golf Tournament was held at the Crestmont Country Club in New Jersey. WOR was represented by J. R. Poppele, chief Engineer; Harold Hadden, N. Y. Supvr; Joe Craig and Sam Morse, NYSE. Craig came away with an electric clock as prize for the longest drive of the tourney giving the ball a 260 yard ride away from the first tee. Craig, living in a d.c. section of the city, is trying to sell the clock to Morse but at the time of writing, the deal hasn't jelled. Eric Herud accompanied the foursome as caddy to a portable radio receiver which was tuned to WOR and just as Jack Poppele was about to tee off, MC had a slight delay on a switchover which may have been the reason for that long drive into the woods . . . WOR played CBS a return game of softball, this time the tables were turned and the CBS crew brought in 22 runs to our 17 . . .

Everyone is leaving or returning from vacations. Ed Scatterday just back from Miami instead of Montauk as reported last month. He reports the sail fishing excellent but swimming not so good as the water is too warm, the average water temperature was 85. He had a picture taken of the sailfish and is having the barracuda head mounted to prove to Paul Reveal that he really can bring them in . . . Shirley Davis away to Cape Cod for the clam digging and lobster fishing, he also sent Reveal a fish head. Seems to me that the fellows are ganging up on Paul. I think they want to acquaint Reveal with fish so that when he catches one, he'll know what they look like . . . Samuleson with a new Nash and getting all set for a swing out to the coast, plans on visiting as many radio stations as possible; no doubt will drop in at the Los Angeles stations to see for himself if it really is true what they say about California . . . Haddon sporting a new Chrysler Royal and taking a short trip to Virginia Beach and returning via the Shenandoah Valley and Skyline Drive . . . Giff Campbell with a new Mercury and Dick Borner with a new Ford. Prosperity must have rounded the corner at last . . . Don Hale has been frequenting Jones Beach on his days off and looks in the 'pink' of condition. I'll match sunburns anytime . . . Jim Carter returned to work after a long siege of appendicitis, looks much better. Carter is giving up the tropical fish and going back to ham radio, having just acquired Vince Barker's RME 69. It is reported that Barker is giving up radio and going in for photography in a big way for which I am duly grateful as I live in the adjoining village to W2KBA. What a signal he used to have! Carter will be on 40 meter CW which he claims is the lowest form of something or other, his call is W2HJY . . . Charlie Kibling dropped in on one of his rare visits to the studios, he tells me that he is

very busy doing up the country dance spots in Westchester and New Jersey and that while he's resting at home he is getting a three element rotary beam antenna ready for the fall DX season. His five Vee beams came down the other day. Guess his neighbors marksmanship has improved. I've often wondered why neighbors are so unsympathetic about antennas . . . Pat Miller is cutting down on his amateur radio operations and enlarging the scope of his photography equipment. Don't forget, the JOURNAL is running a photography contest and a few entries from the WOR photographers wouldn't do any harm. Incidentally, Miller has an RME 69 with a DB20 preselector for sale . . . Jim O'Connor has completed his 125 feet of coaxial transmission line and claims that it will stand more than a kilowatt. Perhaps the line will but I doubt if those 809s of yours will . . .

Went up to W2XJI to visit with George Brazee and found him in the midst of many diagrams and stuff, he's been trying to figure a way to remote control the transmitter from the roof above so that he can sit out in the sun. Has anyone a nice deck chair to contribute? . . . Aside to Charlie Singer; where is that material you promised several months ago? You fellows in Carteret must be doing something more than putting the transmitter on in the morning and shutting down at night. How about a little news from the New Jersey meadows? Even a mosquito story would welcome . . . Since Dick Davis has been elected Vice-President of our ATE, his silence has been deafening. Is this the usual procedure for vice-president or have the Japanese beetles and crab grass been keeping you occupied? . . . Received a frantic fone call from the World's Fair (N. Y.), Bill Boher on the PL and emphatically denying the rumors of a contemplated sail on the sea of matrimony. Bill promised to send some material about doings at the fair. You must have sent it to the wrong address for I haven't seen anything of it . . .

Ted Kasna just moved into his new home and was busying himself by setting up the broadcast receiver but couldn't get any juice at the AC receptacle, went down in the basement to check the fuses and turned on the basement light switch whereupon the radio set started. After that happened he was afraid to connect the refrigerator and range, fearing that ice cubes would come out of the receiver and the range give out with Benny Goodman! (I know it's an old gag but it's the first chance I've had to make use of it.) . . . A blanket of gloom has fallen over the lounge, an investigation was conducted and reports that it was due to the absence of the engineering offices of Florence Oppenheimer, who is now on her honeymoon, and Eleanor Ing, who resigned. A certain studio engineer, who used to frequent the corridors outside the engineering offices, has lately been seen in the MBS offices. He's probably found a 'Mutual' acquaintance . . .

Now that New York State has placed a tax on cigarettes, we see many of the New Jersey residents bring cartons of the weeds for those who live in New York. Others have taken to their pipes for solace. More rugged individuals are rolling their own. The aristocracy have been seen buying cigarette machines but have been very quiet about the results obtained with the gadgets. It's my guess that by now, those machines are in the ashcan . . .

We've been using several of the new Presto recording machines—heavy cast iron base and turntable—equipped with

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HOLLYWOOD

By BOB BROOKE

Oh Boy, What a Summer . . . Sax back from the East . . . Everything calm and quiet . . .

SUN . . . Here I am down at the beach getting sand in my typewriter again . . . Unless this copy is in the mail tonight it doesn't stand much chance of getting printed . . . What a day . . . deep blue ocean . . . white-caps . . . sails . . . power boats . . . blue sky . . . hot sun . . . water 70 and surf good for riding . . . no clouds or fog anymore but a couple of airplanes are cluttering up the sky with tremendous ads for Pepsi-Coia and gambling ships . . . Hollywood master control seems a long way away today but I'm sure they'll be glad to know that we're thinking of 'em . . . in their air conditioned 72 degrees . . . I ducked the crowd today and found myself a spot near Norma Shearer's beach place . . . the old NBC beach in front of Marion Davies' estate is no longer available as new houses have filled the vacant lots and some hard hearted landlord put a ten foot fence across one unoccupied lot . . . Almost the entire Santa Monica ocean front is now private . . . NBCites seem to be finding new places though as Frank Figgins in Maintenance reports enough sand coming out of pick me up battery sets to start a beach of their own . . . Red haired, sensitive skinned Kay Phelan drew first sunburn honors of the season with a day out following a yachting trip to Catalina . . . Ray Ferguson has deserted the beach for a vacation deep in the desert at a semi-dude ranch . . . understand the guests have to help herd the cattle . . . Bridge and poker have grown to be major beach sports this year . . . Chess seems to stay at the studio . . . I still think an engineering endowment toward a nice balsa surf board or sailboat would be a kind gesture on behalf of the department . . .

MISC . . . Mr. Saxton back from his Eastern vacation and Engineering conference . . . reports fine trip but appreciates California's coolness after the humid blast of the East . . . Abe Schecter, in charge of network special events, out to confer with John Swallow and Buddy Twiss . . . All hope he noted our empty mobile unit garage and instead planned a South Seas job or two for this fall . . . (CBS and MBS stole a march on the Honolulu Yacht race) . . . All report Abe one swell guy . . . Pickett got so sick of trying to eat the egg output of his hennerly that he has been taking orders from the boys in the studio . . . Farmer Pick checks market reports each A. M. for day's quotations on per dozen . . . Denny and Jake O'Kelly in hospital following serious operations . . . Rumors about happenings in the Culley household . . . Rushon always on the job . . . Bob Schuetz arrived via his Chevy enroute to speech making at IRE convention in SF and drove in to have breakfast across the street . . . Greeter Rushon steps up and gives him the hello just as if Bob had been in Hollywood all these months and wasn't just pulling in from NY . . . Brooke and DeWolf arrive for coffee few minutes later and are flabbergasted at Bob's presence . . . Expected train trip direct to SF convention . . . Schuetz stayed in Hollywood a day and seemed well pleased with building and way it has taken its first eight months workout . . . DeWolf's to Yosemite camping July 4th week end . . . Helen Welty, Secretary to construction group, reports from sales that she's fine but misses the gang . . . not nearly as tanned as last year even though mentioning trips to Arrowhead and Ensenada . . . Pickett studying navigation with eyes for a boat . . . me too Pick . . . Eddy Miller has converted

his Ford coupe into a sleeper with specially built mattress, mosquito netting, etc. . . . Ed and his wife are zealous explorers and have already covered every inch of marked road in these parts . . . plan some fishing with the Norman's in the high Sierras soon . . .

HAMS . . . Carl Lorenz and his ever present antenna troubles are finding full expression in the design of a rotary for his new Burbank FHA home . . . Sierra Madres rise quite sharply in back of his new place and Carl is desperately trying to figure a way to get W6PKA over or under said mountains and to Europe . . . Daily conference with Charley Perrine have netted only hopes that he might work Europe the long way around in the early morning . . . or a stray high angle shot might follow a layer of ionosphere to Paris or Berlin . . . Another luncheon argument designed to ruin tablecloths and use napkins is how can he get a three element 20 meter beam on top of a sixty foot lattice tower all in one peice . . . Al Korb is well on the air with his 250 watts and 8JK rotary from his new home in Burbank . . . Al has cooked up a motor drive for his beam and lights to show direction . . . also slip ring feeder connections of improved Korb design . . . Al is working Aussies and Zeds with R9 reports on 10 meters nightly . . . Sez, "I think the mountains toward Europe give me an added reflector toward Asia and Australia and compensates for a few Europeans not worked. I am getting better reports than most of the California Kilowatts in my new location" . . . Al likes his new valley home very much except for the airplane QRM . . . (Airports and plane factories) . . . Sez nice column last month Schenectady . . . Charley Norman too busy with Lucky Strike and travels to finish his mobile rig yet . . . Also saving for an overhaul on Zephyr engine . . . (Told you 12 cost more than 8 Charley) . . . Earl Sorenson may accept an offer for his rig and start all over . . . At moment no studio men regularly on ATE net . . . Al will be back on it soon as he gets settled . . . MO Smith reports no hamming till his new house is finished . . . Won't be long now MO . . . Looks great too . . . And on the right side of valley for Europe . . . Capstaff reporting almost WAC with 2 watts from an exciter connected to his antenna . . .

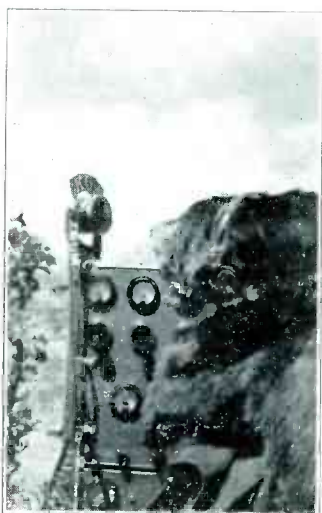
JAKE-DENNY . . . One of chief reasons Jake O'Kelly transferred to Hollywood was his health . . . Early in July he underwent an operation to remove adhesions resulting from an appendectomy some two years ago . . . Excellent surgeon found plenty of other trouble that had not been taken care of or diagnosed in NY . . . Cut Jake up a bit and put him back together . . . Under a local spinal anesthetic Jake watched it all . . . After two weeks in the hospital and two sunning at his ranch Jake will soon be back at work . . . And the doc sez all his troubles are over . . . DENNY . . . Our chairman Ralph "Denny" Denechaud had his appendix out in June and thought that was the extent of his troubles . . . But after two weeks back at the office the difficulty returned . . . Careful hospital observation and X-rays disclosed gall stones and necessity of another operation . . . Last week Denny went back and had 'em out . . . Latest reports are encouraging and six weeks should find him back . . . In the meantime he handles ATE duties from his bed . . . The gang have been keeping in constant touch with both patients . . . (Most important guys in the

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Jay Schermer TRS Evansville Ind W8TBT - W8TIN - W8O A

Little Nemo and the Big Bad Bear

Al Isberg



Once upon a time, on a hot July afternoon, little Nemo loaded all his equipment into the KOA mobile unit and began a long journey toward the Rocky Mountain National Park where he was to provide facilities so that children and grown-ups in all parts of the country could hear the "Nature Sketches" program.

He hadn't gone very far when he remembered that he hadn't packed his shaving soap, tooth brush and pajamas, but the sun was only a few hours above the horizon and an antenna for KDRA, the low frequency cue transmitter had to be erected before dark, so he depressed the accelerator a

little farther, straightened out a curve or so and soon was surrounded by cool fragrant foothills. Another hour later and he had passed through Estes Park village and was talking to a Forest Ranger at the entrance to the Rocky Mountain National Park.

After ascertaining that the Museum several miles up the Trail Ridge road was still open and that darkness was still several hours away, he eased the mobile unit over the hill, stopped briefly to register at a tourist camp on the banks of the Big Thompson river, and presently was at the Moraine Museum, a large stone and log structure containing various exhibits of botanical life, mounted animals and Indian relics.

Mr. Gregg, the Park Naturalist, waved Nemo a greeting from the doorway and then started down the path to meet him. "Jim, down at the entry, phoned that you were on your way up here. Here's a key to the Museum so that you can come and go as you please. I'll have to go to supper now, so that I won't be late to the amphitheater. We expect quite a large group to see the slides showing scenery off the beaten trails."

"Thanks a lot Mr. Gregg, I have to erect an antenna from that tree to the ridge pole of the Museum. It's for the 1602 Kilocycle cue transmitter. With that antenna we should be able to work to timberline very satisfactorily."

"That will be O. K. Be sure to ground it outside the building when you are not using it. We have some rather severe electrical storms up here. If the crowd begins to arrive before eight o'clock, tell them to go up the hill to the amphitheater and I will meet them there."

"All right, Mr. Gregg, the antenna will be protected and it can be easily taken down if necessary. By the way, I wish I could attend your lecture tonight. I want to find an out of the way place that isn't fished to death."

"Well, I can show you some real fishing but it will take quite a hike or horse back ride to get in there. One party caught thirty pounds there last week. We have to make some more color pictures of the region so if you can get away this week end I would like to have you come along. The interest in the lectures and excursions is very good. Each year more

people from all over the country, not to mention the kids in their camps let us plan their vacations here in the park. Each week has a definite new schedule, the visitors may attend any or all of the hikes and lectures and there is no charge for the service."

"Pretty soft, having a vacation up here with planned trips, talks and everything free except lodging and food. When my kids are big enough, you will have them all summer long. Well, I've got to get busy on this antenna. See you in the morning, Mr. Gregg. Good night."

So after climbing a huge pine tree and the slippery roof of the museum, little Nemo heaved a sigh of satisfaction and began resonating the shiny 300 foot antenna with KDRA. A new antenna coupler had just been installed so he had a lot of satisfaction from trying the rig on all three frequencies. Everything was working satisfactorily and the frequency checked O. K., so he detailed his worthy stooge, Joe Rohrer, to make a propagation test up the Trail Ridge road to the scene of the broadcast at Timberline. Two way operation with W10XED on 31.2 megacycles with only slight fades behind hills but broadcastable all the way proved that the assignment could be fulfilled. It was 10:30 that night when the test was completed and only then did Nemo realize that he had had no nourishment since noon.

After a hurried trip to the village for a short cut steak and pie a la mode; back to the cabin on the banks of the Thompson, and Nemo was sound asleep under the icy cold sheets.

Five thirty a. m. and the jangle of the alarm jarred him out of bed to kindle a fire to warm some water for coffee and shaving and to prepare breakfast of bacon and eggs. Shaving was a torturous ordeal with hand soap for lather, and the results were rather doubtful, but at least Nemo knew he had tried.

Six thirty a. m. found Nemo at the Museum to set up the ND10 field amplifier, check the transmitting equipment and frequencies again. He put the key in the lock to open the door, but it wasn't locked! "That's funny. I'm sure this was locked last night. I know I tried it." He mused.

He pushed open the door, and what a disordered mess met his eyes.

Tubes and crystals here and there all over the floor, cravenete covers tossed in a heap in one corner, amplifier cata-comb torn loose from an ND10, ND 25 out of its box with shields all off the RF stages, battery cables tied in knots, storage battery on its side with acid making a foamy mess on the floor—"Who in the ——— has been in here," said Nemo who never had been heard to say anything so profane. "And only two hours to broadcast time. But where in the h— is KDRA?"

A thorough search of the room and the rest of the building and still no KDRA could be found. The transmitter for the cue circuit was gone—and with it the power supply.

"Wait a minute," gasped his stooge, Joe, who had chanced to look out the window, "what's that up on the hill?"

Nemo looked out the window. Under a wild rose bush on a hill just a hundred yards away was a huge black furry object beside a grey box fitted with parts that shone in the morning sunlight.

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NEW YORK

By Ted Kruse and Jon Larson

Johnny Clayton is now on vacation and how we miss our secretary around whom revolves much of the ATE business here.

A most interested visitor to Radio City, July 18 and 19 was Jim Thornbury, Chicago SE. He was much impressed and enjoyed every minute, he says.

"Red" Shultis made quite a splatter on the society pages of the New York Sunday papers (July 16) when his conquest of New Hampshire golf links was covered and although we compliment him we are envious of the beautiful cup he garnered for himself.

Hoss-flesh and G. B. Butler got together at his favorite New England running track near Boston. Gee Bee says Boston is O. K. but not as swanky as Newport.

Fellows just returned from vacations, Bob Johnson, Pawlek, Shultis—etc.

M. Jacobson, NYFS, just departed on his vacation and says he will have simply a quiet time this year. Can it be he has joined the Oxford group?

All the gang in New York are happy to see the Brown-Hiller combine in the fold from their recent affiliation with the radio department of the New York World's Fair. They did a swell job of organization and service for the Exposition under most trying conditions.

The Army maneuvers at Plattsburg in August will take a good many of the boys from Field up-state and they are in for a hot time because hot is the word when that country sun bears down!

Don Stair, engineer in charge of WJZ, besides keeping a very busy crew happy at his rapidly growing radio-central, has continued beautifying the surroundings with definitely horticultural technique. The new South American co-linear, stacked beam antenna plus reflector really does itself proud in B. A. by an increased signal field of some 20 db. How about some dope on it from the Engineering chapter?

Serge De Somov, NYSE, lost all his fishing tackle recently when someone broke into Serge's fishing shack at the shore. Tough luck Om.

Recently Harry Grelk, NYSE, was overheard phoning in a complaint about his new gas range. "A strange carbon odor comes out of the oven," Harry says. We wonder who does the cooking in the Grelk homestead.

Bill Pooler, NYSE, recently returned from vacation and reports fine weather and fish at Cape Cod. Pooler spent much

time among the lobster fishermen and tells about a prank they played on one of the fisherman. It seemed they opened a lobster trap, imprisoned a large skate, and sealed the trap again. The fisherman is still wondering how such a large fish got through such a small hole.

It is reported that Montilla and Reed, NYSE's, went to Jones Beach recently. Montilla spent three hours trying to persuade Reed to enter the water.

V. J. Duke is spending his vacation entertaining the five little Dukes. Rather than taking them to the beach once a week he is now taking them once a day.

The entire television mobile unit is on vacation. Accepting an erroneous press release of last month leads us to an apology this month in regard to the mobile unit. It seems that the transmitter unit went to Camden for frequency change and the new camera change is to be installed in New York. Apologies to Mr. Wankel.

All of the television engineering staff who have seen the Bair large screen television are most enthusiastic and feel that television for both home and theatre is progressing rapidly.

Dave Maloney should apply for a part in the Broadway success, "Fireman Save My Child," since he discovered one of the sync generators on fire the other morning. After extinguishing the fire he called Wankel and told him of his heroic efforts in behalf of television. Wank called the chief sync generator worrier Monfort and told him of the misfortune. All this at 2:30 a. m. However, a couple of resistors and a new tube and all will be well again.

Lew Hathaway just returned from a trip to Denver wearing an Indian wrestling belt which he won from Joe Rohrer. We understand that the battle was fought in Rohrer's home stadium, according to Rocky Mountain Indian rules and that it was a terrific battle but that ex-champ Rohrer claims he was not in A-1 condition.

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SCHENECTADY

By H. C. Mosher

Ken Durkee, SE, returned from his vacation with a most beautiful tan. Wellfleet, Mass. was his vacation headquarters from which he visited the many interesting places of Cape Cod. Much of his time was spent at the site of Marconi's first radio station in this country. After digging considerably Ken made up his mind there were no souvenirs left. Next month we hope to have a story about what Ken found at South Wellfleet.

Howard Wheeler, CS, left July 7 for a well-earned vacation. He expects to spend the first week at Penn Yan, N. Y. and the remainder at a camp on the east shore of Lake George.

Peter Narkon, SE, spent the latter part of June and the first part of July scouting around the Adirondack Mountains. He tells us the fishing, as a whole, is very good but the trout are off their feed now as the water is getting too warm.



Upper - One of Doc's favorite spots. Lower left - The largest Beaver Dam I ever saw. Eight feet high and fifty feet long. Lower right - Brown Trout taken from the Kayaderosserus.

Mosher spent a few days in July with his old friend C. C. Davis at Newport, N. Y. They fished some of Doc's favorite beaver dams. Did they get any fish? We heard that Mose brought home 17 fair sized speckled trout.

By the time you read this Ray Strong, SE, will be enjoying his vacation at a camp on Lake George. Ray and the Mrs. always look forward to their vacation as that is when they have the most fun with the triplets.

One of the July electrical storms did some damage to the telephone line between Averill Park and Totem Lodge making it necessary to cancel one network program. We went ahead with our test however, with the hope the trouble would be located before program time. There was considerable cross-talk on the circuit at times and one woman was heard to say, "Some one is on this line and they persist in playing their radio as loudly as possible. Will you please get off the line." There were others who wished the same as she did but did not say it.

Sylvio Caranchini, SE, is now reaping the rewards of his spring's hard work. His garden now provides more fresh vegetables than they are able to use.

Send in your entries NOW

for the

Annual PHOTOGRAPHIC CONTEST

The deadline for entries is September 15

**Three valuable merchandise prizes will
be given away!**

CONTEST RULES

1. Any reader of the ATE Journal may enter the contest.
2. Contest will end September 15, 1939. All entries received postmarked later than midnight September 15 will be disqualified.
3. All entries must be between 4" x 7" and 11" x 14" in size.
4. Entries must not be mounted or framed.
5. No entries will be returned unless accompanied by self addressed and stamped mailing carton or envelope. No entries so sent will be returned before October 15.
6. Entries depicting some phase of radio in either still life or action pictures are preferred, but not required.
7. All entries must be accompanied by a statement as to: type and size of lens; make of camera; exposure time; aperture of lens. Other data pertinent to the taking of the photograph.
8. All prizes will be awarded on the date of publication of the October issue.
9. The decision of the judges will be final.

Send entries to ATE Journal, 30 Rockefeller Center, New York City.

Simplifying Ham Receiver Control



The ham is probably the most critical and demanding of any group of radio listeners and as the result of his tremendously varied requirements innumerable features are found in present-day communications receivers which exist in no other types. With the increasing number of features has come a more or less proportionate increase in the number of operating controls until the array on many front panels is little less than bewildering.

In order to provide the utmost flexibility in the use of these features a large number of controls is, of course, essential. But as new features have been added there has been a tendency to simply add further gadgets for their control, without thought to related functions which might permit control of certain functions in groups rather than individually.

The introduction of the "Skyrider 23" model by Hallicrafters marks what is believed to be the beginning of a new trend in ham receivers in that its "functionalized" design provides simplified operation without sacrificing flexibility of application and control.

In the matter of band-switching, for instance, a single switch provides a choice not only of the four main tuning ranges of .54-1.7, 1.7-5.2, 5.2-16.5 and 11-34 megacycles, but also of independent electrical band-spread ranges for the 10, 20, 40 and 80-meter ham bands. Thus if the amateur desires to listen on the 20-meter band he simply flips the switch to that position and is "all set" with no worry about presetting the main tuning range or other related adjustments. Moreover, because this is an entirely independent tuning range a given frequency will always come in at the same point on the linear scale on the outer edge of the main dial and individual stations can therefore be permanently logged for future reference. Band-spread in this range is such that seven rotations of the 2½-inch wheel-type tuning control are required to cover the 400-kc. span of this 20-meter band—a movement of approximately one inch for each ten kilocycles.

Another "functionalized" grouping is found in the 6-position selectivity switch in which this one control serves the purposes of three normal controls—a. v. c. off-on, crystal off-on and band-width switches. The first three positions of the switch are intended primarily for c. w. reception and in all

of them the a. v. c. system is automatically cut out.* The first position cuts in the crystal and provides maximum crystal selectivity. In the second position the crystal is still in the circuit but its circuit is altered to provide somewhat reduced selectivity. In the third position the crystal is cut out and the degree of selectivity is that provided by the "sharp" position of the tuned i. f. circuits.

The other three positions of this control are for 'phone reception and provide full a. v. c. operation. Position number 4 utilizes the crystal filter but broadened as in the No. 2 c. w. position to provide intelligible speech. Position 5 is for normal 'phone signals, providing sharp i. f. selectivity with the crystal out. The last position is for quality reception of broadcasting obtained through broadening the i. f. band-width.

Thus by means of these two functional controls the receiver is instantly "set up" for any desired type of reception on any tuning range. Whether the range selected be general coverage or band-spread it utilizes the same "wheel" control for tuning. Moreover, this single tuning control is located at the right while all auxiliary controls such as manual r. f., audio gain, b. f. o. off-on and variable pitch, are placed at the left where they can be regulated as desired with the left hand while tuning with the right hand.

Another feature which simplifies operation is the temperature compensated oscillator circuit which substantially eliminates the constant retuning of a signal made necessary in many receivers by oscillator drift. The use of oscillator circuit components of opposing and carefully balanced temperature characteristics is one of the main factors in this innovation but other contributions to stability are also made by the circuit designed which minimizes the influence of line-voltage variation on frequency, etc. In combination these result in average oscillator drift throughout the four ham bands of only 160 cycles per megacycle, per hour (after initial warm-up of ½ hour.)

Ham receivers can, of course, never provide the simplicity of operation of standard broadcast receivers but at least it is interesting to note that some steps have at last been taken to arrest the forward march of added control gadgets which were beginning to make the holding of a ham Q S O more of a technical feat than a matter of enjoyable intercourse.

ON THE STUDIO BEAT

One reason why Mr. and Mrs. Young in Pepper Young's Family are such convincing radio actors is the fact that they are well schooled in the role of matrimony—they have just observed their 21st wedding anniversary.

Another Summer Holiday Sidetracked Department: Hal Peary, NBC character actor who has been heard with Fibber McGee and Molly, decided to take a vacation in Chicago when that program closed for the summer. After buying a new car he intended driving back to Hollywood. He got as far as NBC's Waterloo Junction where he was nabbed to play Titus Pennypacker in the Windy City broadcast.

DENVER

continued from page 10

"It's a BEAR," gasped Nemo, "And what a bear. It looks like it's got KDRA! What are we going to do? We don't have a gun and those relics upstairs in the Indian collection wouldn't be of any use. Do you suppose we might sneak up behind him and overpower him?"

"We might sneak into the woods and whistle CQ at him," commented Joe as though he didn't believe in physical force. "Say, I wonder if that bear has a license. The frequency meter has been disconnected so I know he hasn't checked the frequency. That's against the law. Maybe we could impersonate the RI. Surely he has heard about the RI!"

Nemo looked hopeful. "It's our only chance. Time's wasting, let's put out our chests and lay the law on Mr. Bear."

So not too confidently, Nemo and his stooge began climbing the hill. When they were about fifty feet away, the bear said in a deep growl. "QRM again. If it's not one kind it's another. How can I ever get my sked through to cousin Polar Bear with those lugs around. SCRAM!"

"Not so fast there big boy," retorted Nemo, "where's your license to operate that rig? Do you own the transmitter, and if you don't who does? Are you a citizen of the United States of America? Do you represent any foreign government? Is any of the stock in your corporation controlled by an alien?"

"Woof," said the bear and his eyes glowed red as he stood up on his hind legs until he towered above the brave Nemo, "I refuse to answer those questions until I see my lawyer. I will not incriminate myself. SCRAM!"

"Do you know that you are violating the provisions of the Radio Acts of 1912, 1927, Comm. Act of 1934, and many regulations of the Federal Communication Commission. Oper-

ating without a license alone is a \$10,000 fine or two years in jail."

"SCRAM!"

"Failing to check the frequency of the transmitter is a most serious violation. Besides, unless you know what frequency you are operating on, how do you know your cousin will hear you?"

"Well, I would have checked the frequency if they hadn't made that dang thing so complicated. Warming up, callibration, interpolation—Aw Nuts. Give me a wave meter like I used back in '28."

"Oh, you were a ham then?" queried Joe a little skeptically. "Those were the good old days. "But say, You don't have a receiver. How do you expect to hear the cousin?"

"Aw Heck. I don't use a receiver. I just transmit. Besides cousin Elma doesn't say anything important enough for me to listen to any way. I like a lot more to hear myself in the monitor. I only transmit."

"That's another specific violation of the Communications Act. That's superfluous signals." Forcefully quoth Nemo.

"Well, I don't know. They weren't so particular back in '28. But laying there on the floor in front of the fire place at the Museum and seeing all this nice equipment shining there in the moonlight, I just had to get my paws back to twisting knobs. It's been awfully lonesome since they moved me from the old Forestry Radio Station to this new Museum. I miss the code signals and static so much. But you won't be harsh with me will you? I'll go peaceably back to my hearth, but I fear I'll need help."

With that the bear crumpled in front of the transmitter. Little Nemo tenderly picked him up and put him on his shoulder, grasped a handle of the transmitter with one hand while Joe helped him carry it back into the Museum. They had to work very fast in order to get the equipment ready to go on the air by the time the Ranger and the children had started up the Trail Ridge Road, however, the program was very satisfactory and the old bear seemed to smile as he listened to it on the hearth.

ON THE STUDIO BEAT

BING CROSBY, NBC's vacationing star of the Kraft Music Hall, and his partner Lin Howard, dropped a cool thousand yesterday when their horse Ligaroti also ran in the Massachusetts Handicap at Suffolk Downs, Boston. The additional grand was a penalty imposed when they entered their steed after the entry date had passed.

CHESTER STRATTON, who portrays the role of Cousin Horatio in NBC's dramatic serial, "Lorenzo Jones," is doubling in stage and radio work. Between broadcasts he commutes to Atlantic City to appear with Ethel Barrymore in "White Oaks." Stratton plays Finch, and in one of the scenes he performs on the piano. Unable to read a note or play any instrument, Chester was given special instructions. He spends a few minutes in the studio each day practicing his piece.

BOB HOPE, whose Pepsodent series will return to NBC in the Fall, is now in New York on a brief visit, including personal appearances at the Paramount Theater. The comedian and his wife will sail for Europe on August 2. Tickets for the trip, and a check for \$2,500 were presented to him in Chicago last week by his sponsor.

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HOLLYWOOD

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outfit) . . . All are rooting for 'em and are happy that it means the end of old troubles . . .

VACATIONS . . . Sax had his while East . . . De wil camp with family in Yosemite's greatness . . . Fergy out on the Desert . . . (Palm Springs influence) . . . Capstaff's spent theirs at Lake Arrowhead . . . Cappy's and Lorenz's with new Fords . . . Miv Adams up through Oregon and Washington . . . Card from Miv backs up his contention that Chevys can take Fords on hills . . . Johnny Morris back from Birmingham . . . glad to be back where it's cool . . . called Horstman in Cgo but didn't have time to visit studio . . . 5500 miles . . . cracked a cylinder head fifty miles from a garage in Texas and lost a day with towing, repairs, etc. . . . Murdo MacKeazie heading for Alaska first of August . . . (There's a smart laddie) . . . Correction Sorenson fish story . . . Earl with tackle, creel, boots, etc. . . . went down stream while wiley waited at camp . . . she got tired and made up a hook and line out of odds and ends baited with angle worms . . . Wiley caught sixty out of the 73 fish reported in period of trip . . . Frank Figgins drove through north and shot a couple of hundred pictures but not one of himself for Journal . . . Andy Andresen down for busman's holiday . . . expects to break away from studio long enough to look at Catalina . . . Bet radiomen are world worst busmen . . . Welcome gang, we're in good training as guides . . .

NBCAA . . . Still going to town with latest events, a Saturday beach party and an evening horse back ride and steak fry in the mountains . . . Softball and bridge are also finding much summer favor . . . Not many engineers on the ride but a number at the beach party . . . Photo contest, weinie roast, dancing, and a trip to a beach amusement Fun House, highlighted this party . . . all had a fine time and are clambering for another before summer ends . . . Engineering assisted with music, pennants, and general arrangements . . .

SHOWS . . . Summer slack has given us a breathing spell . . . altho vacations equalize the manpower situation . . . Lucky Strike is still here with Kay Kyser dickering with movie offers . . . Grouch Club was released from 22,000 seat Hollywood Bowl . . . Ray Ferguson and Joe Kay handled pickup with Bob Moss as NBC producer . . . Crowd of 18,000 fell under the maximum house of the General Motors symphonies released from the Bowl two years in succession . . . A number of new sustainers are being groomed for fall commercial consumption . . . One Man's Family and the Fleischman Yeast Mystery serials are in San Francisco for two months . . . Switch to home town does in place of off the air vacation for cast . . . Three hundred extra seats added on stage of studio "A" for audience to Kay Kyser's Lucky show . . . This affects stage acoustics considerably . . . Won't be long now till the shows start trekking back our way for their winter contracts . . .

NOT TECHNICAL . . . New word by beach jitterbugs . . . He's a wolf . . . meaning he's after all the pretty gals . . . Understand certain of our announcing staff are champion wolfers . . . When will the day come that engineers will be so crowned . . . Note new gag in auto decoration business . . . License plates now on sale for any country in the world . . . India, Australia, China, France, etc. . . . Seems these pretty little enameled license plates can be purchased for four bits at any auto supply house . . . Hollywood has always traded in authentic used European plates . . . GB . . . F . . . QC . . . etc. . . . But these new plates all look alike and same country have some numbers . . . Revolving band stand refused to stop at La Conga other night while on the air and sax sections were

flying by the NBC mike followed by rumba rhythm sections . . . Two bands play at La Conga and second band sets up on opposite side of a middle partition on a circular revolving stage . . . idea is to bring a band around front while one disappears . . . automatic device failed to stop stand on a half revolution and turned it into a merry-go-round much to delight of audience and consternation of NBC announcer . . . Kay Kyser came sirening into lot with police escort from Personal appearance at Paramount theater downtown . . . dashed up to artists' entrance and ran inside . . . after him ran parking lot attendant Chuck Smith trying to collect his fifteen cents and give Mr. Kyser a parking stub . . . President Heising of IRE was entertained for several days in Hollywood on his way to SF convention . . . NBC engineer, past chairman of local IRE, was showing Mr. Heising and party through building . . . Paused at Nemo standby booth to remark about a piano fill going on . . . said, "Fills from Hollywood are very rare. It must be a major failure" . . . Next was the master control room where Les Culley in his own quiet way thundered, "Listen Brooke, Do you know you're supposed to be on the air from the Ambassador?" . . . end quote . . . 73

W O R

continued from page 8

the vertical damper and spiralling feedscrews. They certainly are a great improvement over the older types of recording machines. Anyone contemplating improvements in their recording departments will do well to install the vertical damper as it does everything claimed for it . . .

Add to "Trouble west of Denver" gags; MC recently had cause to complain about a show on the network. They called the local A.T.&T. and reported trouble on the program. NR came back in a few moments with 'trouble west of Denver.' MC then informed them that the program was originating in Chicago and coming east! It must have been a reroute . . .

After much measuring of my attic, I find that I have room for a three element rotary beam on ten meters so if any of you fellows know of anyone who has tried a beam in the attic, I would appreciate a card telling me of the results that may be expected. In reading the July issue of 'RADIO' see that Kraus shows a three-eighths wave vertical antenna which looks very much like it is going to be the answer to my search for an antenna that will keep the neighbors happy and still keep W2ICX on the air. Has anyone any suggestions for a small 40 meter antenna?

As each deadline approaches and I take up the better part of one of my days off, I always promise myself to get busy and get this written before the last day but somehow I can't seem to do it. I'll be on vacation when the next one is due so perhaps I'll get it finished on time.

GOSSIP — RUMORS — FACTS & FANCIES—

The radio members of St. Louis local No. 1 I.B.E. of E.W. must pay in \$36.00 per quarter as dues. Part of this is for unemployment assessments and for other union uses for which they have never received an explanation.

Recently, the officers of local 913 IBEW in New York rigged a meeting of CTU men in order to raise the dues from \$3.00 to \$4.00 . . . the broadcast men objected very strenuously but to no avail as they were in the minority.

The new ABT by-laws have a clause which permits a unit to withdraw from the ABT but the clause is so written that it will take nearly a unanimous vote to enable that unit to withdraw. The by-laws says that if five men of the local unit desire to remain in ABT, the unit cannot withdraw.

TELEVISION

continued from page 1

the studio work was rather heavy.

July also brought us Allen Prescott (familiar to all as the "Wifesaver") and his amateur or variety show of various and miscellaneous performers. These shows are always interesting and move so rapidly that they are never boring.

All this has been approximately a chronological resume of television here in New York since its opening day with only the writer's opinion where any opinion was evident. About the public reaction to these programs . . . well, the radio and entertainment editors on the various dailies are not very kind and their comments are generally on the caustic side. True though it is that we of the engineering department criticize the programs severely, it should be remembered that the medium is new and political factions among production people are struggling for the top hand. Motion picture producers, Broadway producers, radio producers, and just plain dumb clucks are fighting tooth and nail for what they think television entertainment should be with the result that the public as the commentators state, is not being very well entertained.

Only one station, the NBC Empire State transmitter, is as yet on the air in the New York area and the ten or twelve hours per week that is broadcast contains a goodly number of programs of low entertainment value. The entry of Columbia into the broadcast picture would do wonders for television in that a second source of programs would be available, the number of hours of entertainment would be increased and the quality of programs would in all probability be raised. Competition has proven a great stimulus in sound programming and would undoubtedly have the same reaction in television.

Regular operation of the powerful General Electric transmitter in upstate New York would give experimentally inclined amateurs something to shoot at and would stimulate home interest in the Schenectady-Albany area.

It is generally known that several receiver manufacturers have spent considerable time and money in the development of television receivers, but as yet only RCA has put a really acceptable line of receivers on the open market. Of course, there are several smaller manufacturers offering receivers, however many of these receivers reflect a decided lack of thorough research and engineering development and when exhibited with the more expensive RCA line they suffer beyond purchaser comparison. Not having the price of the more expensive receiver and not being satisfied with the performance of the cheaper one the prospective purchaser continues to listen to Charlie McCarthy and Jack Benny.

The published attitude of the RMA apparently has done much to bring about this condition since at least two of the larger receiver manufacturers announced through the press that their receivers would be on the market on a given date, but by the time this date arrived both they and the public had forgotten about it. In case you don't read the papers the "attitude" mentioned was the published statement of the RMA to the effect that television was not ready for the public and would not be ready for some months or years to come.

Discouraging? Yes, but more recently at the Atlantic City convention of the NAB the NBC Mobile Units put on a very creditable demonstration of the RCA Television System and from all reports the delegates were highly pleased and interest in both transmitters and receivers was exceptionally sharp.

One distinct obstacle stands in the way of the commercial broadcasters becoming television experimenters and that is the fact that only experimental licenses are issued for picture transmissions. The general attitude of the licensing authorities is

that the broadcasting of pictures by commercial stations is not truly experimental and that by offering picture broadcasts the commercial station is thereby increasing its value to its owners. Though the television operation might be carried on the expense side of the station accounts the advertising value to the station itself would be considerable.

A thorough discussion of all the angles, possibilities, difficulties, pitfalls and successes of television would require more time and space than the Journal has available and a writer with a much wider view of the entire picture.

The most encouraging step taken with the opening of the television program service was the appointment of Alfred H. Morton as Vice-President in Charge of Television. Respected for his executive ability and well liked by all those whose privilege it is to know him, television under his guidance cannot help but succeed.

We know that all of our Journal readers are watching television grow and in the not too distant future we'll try to bring you up to date once more. 73 RDC

CLEVELAND

continued from page 4

his license from the Buffalo RI.

H. V. BRANDT, TE

must have spent a lot of money for fireworks to judge from the booming and flashes that were coming from that part of Brecksville before a big thunderstorm washed out the fourth of July in these parts. However he got some extra fireworks when the bias starter coil went up in a flash of flame a couple of days before the fourth. A little carbon dioxide snow produced another kind of a roar that put the fire to sleep, however.

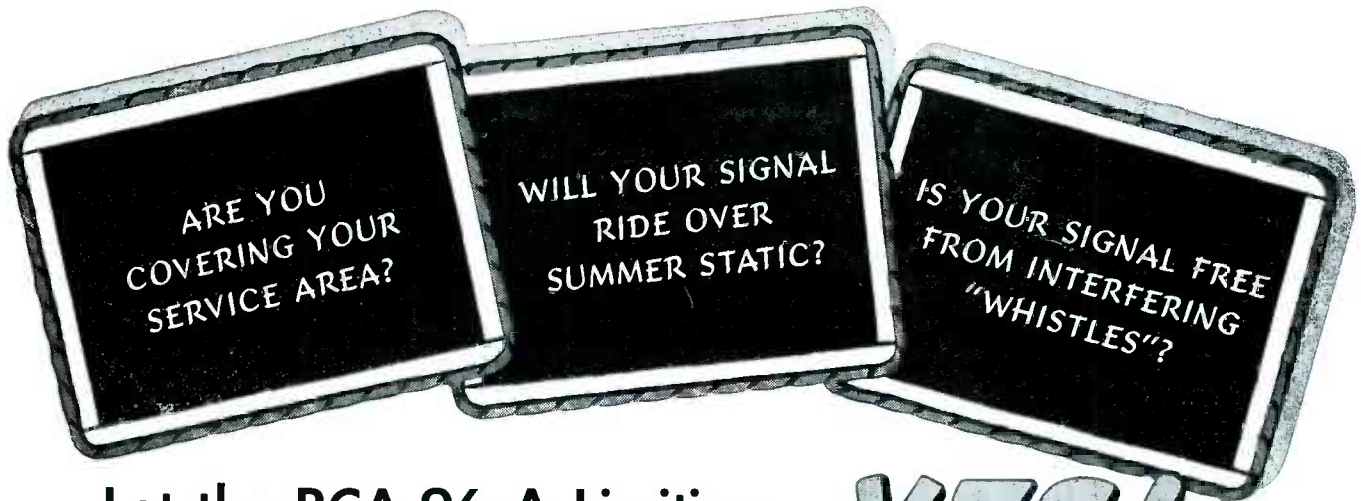
F. C. EVERETT, TE and C. C. RUSSELL, TE

have been holding serious conferences on fine grain developers and dumping sticky messes of sugar, molasses, lard and glycerine into their developers to help things along. The results have been checked by microscopic examination, and while undoubtedly finer grain is being obtained, the question before the house is, "Has the emulsion speed suffered?"

ON THE STUDIO BEAT

NBC's network *chimes*, the three bells you hear during station pauses, are being used in Switzerland as a clincher in the sale of radio receivers according to a Zurich service man and "ham" who recently toured the International Division's W3XAL transmitter. His claims were substantiated when N. Hegemann, assistant station engineer, completed a deal with him whereby he will install a set and antenna at the home of Hegemann's sister, twenty miles from Zurich, on his return.

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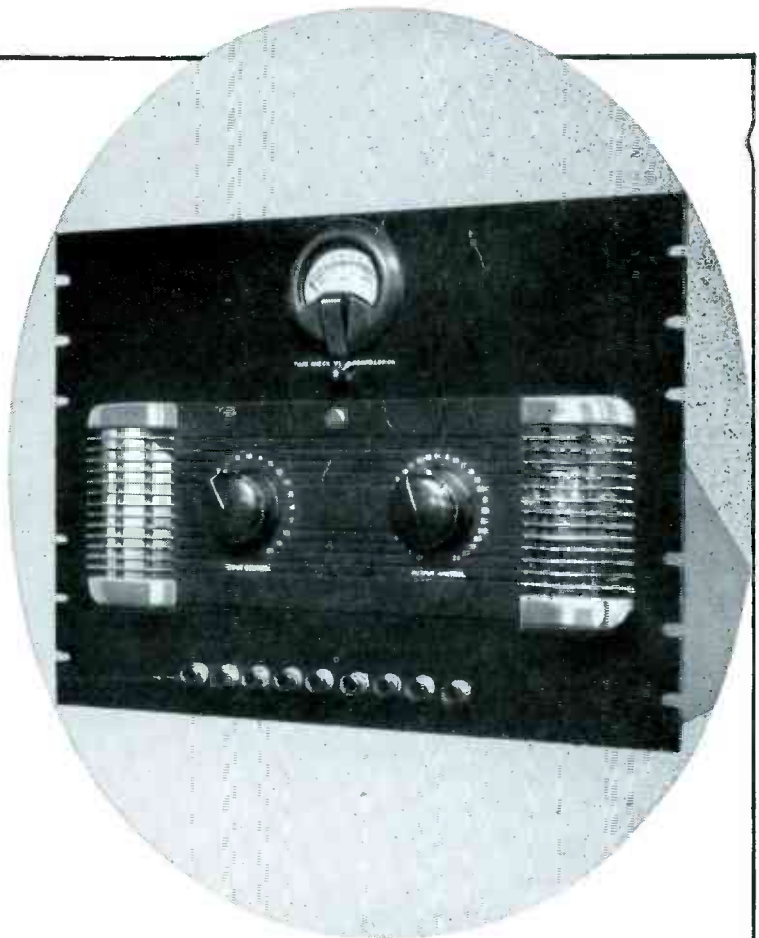
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Why not install an RCA Limiting Amplifier now—when maximum signals are needed to overcome summer static. Write the nearest office for complete details.



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