

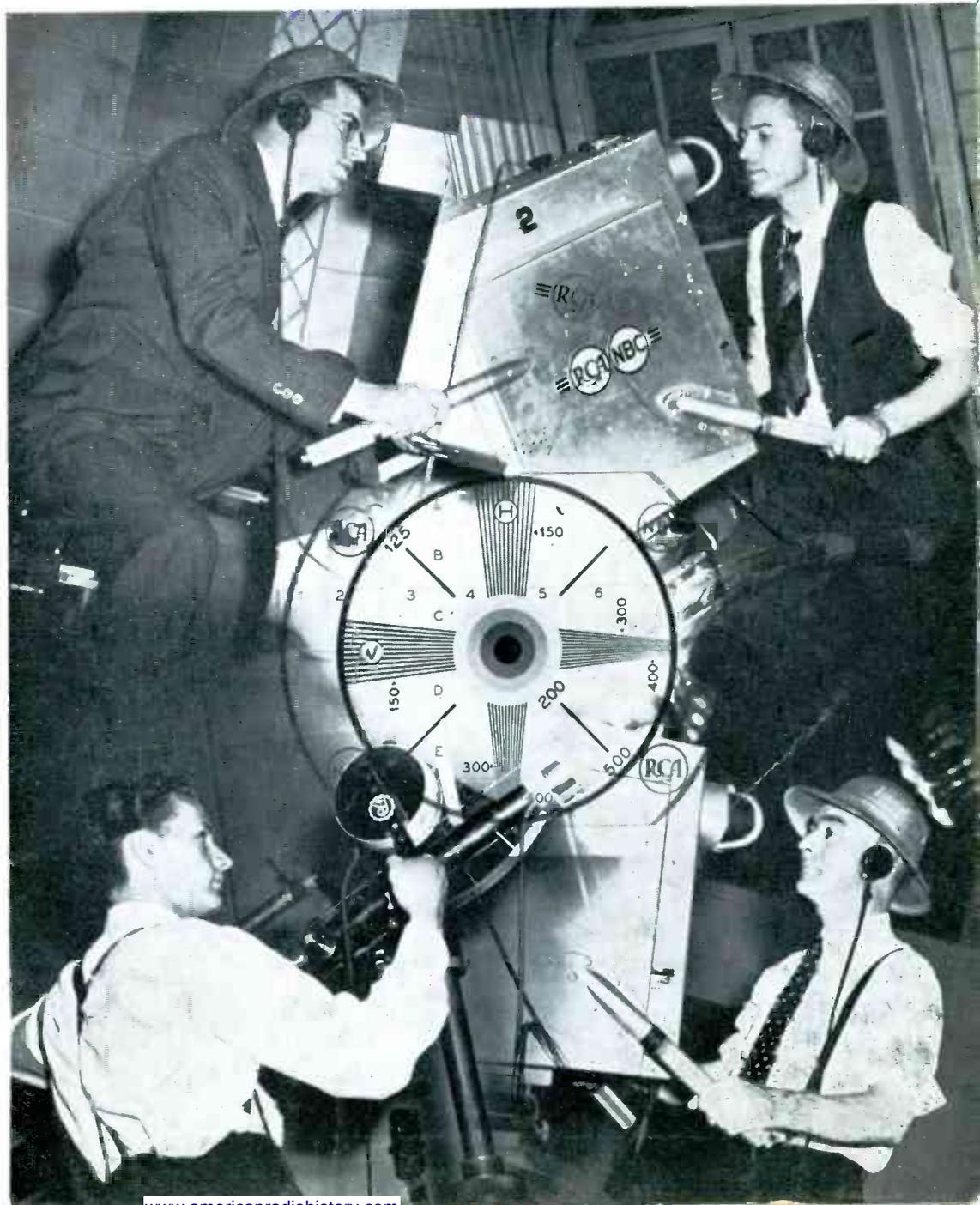
WIRELESS

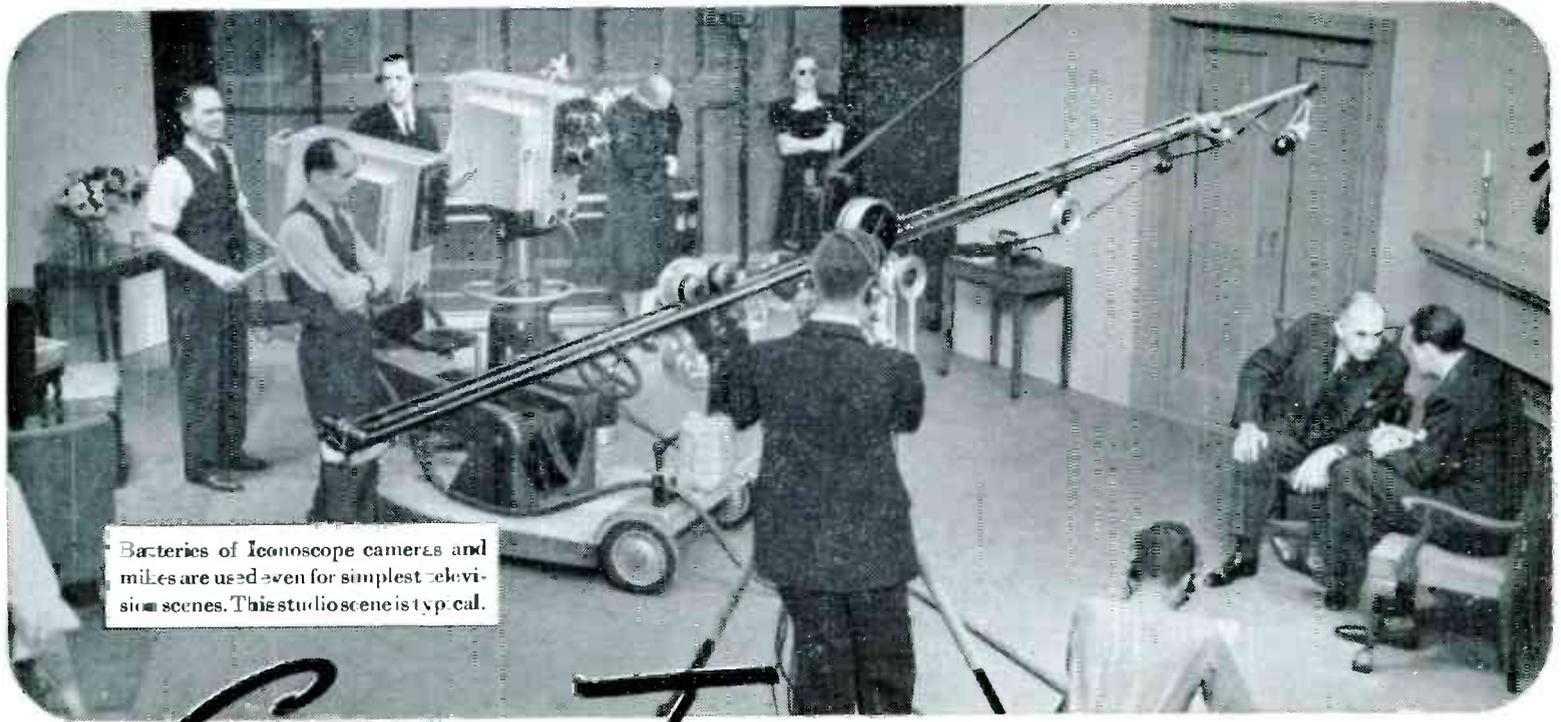
OCTOBER

Photographic Issue

1939

*Sound
Action
Camera*





Batteries of Iconoscope cameras and miles are used even for simplest television scenes. This studioscene 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**

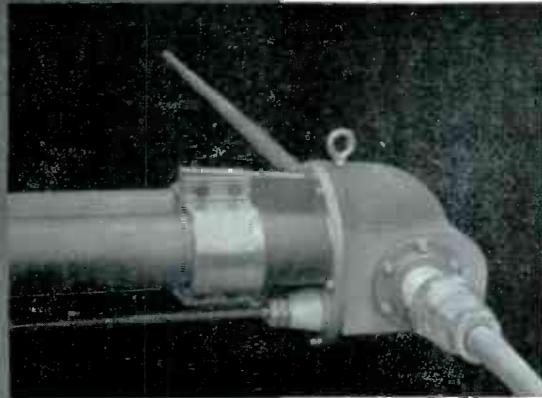
THE WORLD'S GREATEST BROADCASTING SYSTEM

A Radio Corporation of America Service

CHRYSLER TOWER

CBS TELEVISION ANTENNA

Another Achievement
of Isolantite's Cooperative Design Service



● An outstanding example of Isolantite's service and cooperation with other organizations is the Antenna System at Columbia Broadcasting's new television station in the Chrysler Tower. Through close collaboration with the engineers of CBS and RCA, this unique television antenna

system was produced. Starting with the fundamental electrical and physical requirements laid down by these engineers, Isolantite developed the mechanical design of the antenna in cooperation with CBS, and manufactured the entire system — dipole antennae, transmission lines, junction boxes, and matching equipment.

Service of this kind is typical of Isolantite's ability to offer consulting, design, and manufacturing experience to other organizations in the television and radio fields. In the design of a small insulating part or a complete antenna system, Isolantite's broad experience can be of assistance to you.

Both Isolantite* and the lower-loss Iso-Q for ultra high frequencies can be economically produced in new forms to meet changing trends in radio and television — and Isolantite constantly studies these trends to anticipate the requirements of the companies it serves. Let Isolantite's specialized knowledge help you in your own insulation problems.

*Registered Trade-name for the products of Isolantite Inc.

ISOLANTITE INC.

CERAMIC INSULATORS

Factory: Belleville, N. J. • Sales Office: 233 Broadway, New York, N. Y.

ANNOUNCING

THE ULTIMATE IN EXPOSURE METERS



The **NEW**
WESTON
Master

UNIVERSAL EXPOSURE METER
(Model 715)

- ★ New *extreme* HIGH SENSITIVITY for all low brightness scenes.
- ★ New INCREASED LIGHT SPAN . . . permitting accurate measurements from 1/10th candle per square foot, up to 1600.
- ★ New, separate and automatic, "High Light," "Low Light" scales provide greater scale length, greater legibility . . . eliminate all confusing, congested light numbers at both ends.
- ★ New, free moving calculator dial with wider range of *f* stop-shutter combinations, and film ratings up to 800 *Weston*.
- ★ Hermetically sealed photo-cell . . . providing greater stability, sustained accuracy, longer life.
- ★ Rugged, accurate WESTON instrument movement . . . large enough to be *made* precise, and to *stay* precise.
- ★ Built to the highest scientific standards, by the world's leading instrument builder. Calibrated and checked in the world-famous WESTON laboratories. Weston Electrical Instrument Corporation, 614 Frelinghuysen Avenue, Newark, New Jersey.

WESTON
Master

EXPOSURE METER

HARVEY'S

CONVENIENT to EVERYWHERE

RADIO... then CAMERA

... now **TELEVISION**

It is interesting to note that for years HARVEY'S was a RADIO store exclusively. When radio men began to acquire an active interest in photography . . . we added a complete CAMERA department.

Now, the boys are as much interested in sight as in sound . . . and TELEVISION is the "high spot."

TELEVISION RECEIVERS and PARTS are **IN STOCK** for immediate delivery.



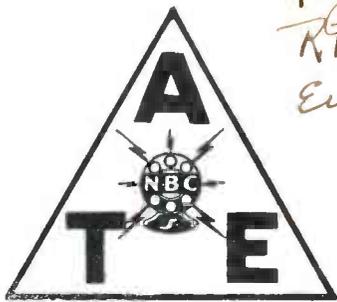
So much for our "story" . . . Telephone Bryant 9-6694 to test our service . . . or better yet, step in and look us over . . . You'll find every convenience in our newly decorated showrooms . . . and every courtesy from our staff.

RADIO · CAMERA · TELEVISION · and electrical accessories

OUR *Best* VALUE IS OUR RECORD OF LOYAL SERVICE

HARVEY
Radio Company of New York

103 WEST 43rd STREET · NEW YORK, N. Y.



Jay Gehres
RR #5
Evansville Ind

WBZ
W9AII
WEOA

JOURNAL



VOLUME 6 ISSUE 10

OCTOBER 1939

Record Photographs For Engineering Purposes

By JOHN N. HARDMAN

Photography can be, and often is, one of the engineer's most useful and valuable tools. This is no news to the alert engineer—for there are many who have already experienced the need for photographs in their work and have seen how really helpful they can be. However, it is obvious that the only good photograph, from an engineering standpoint, is one which shows the subject clearly and sharply, so that upon future reference, every possible detail will be clearly defined. Consequently, it is the purpose of this short review to point out and emphasize the fundamentals upon which depend the making of technically good photographs. Such considerations are—or at least should be—elementary knowledge for any professional or commercial photographer who is called in to record in pictures the progress on some engineering project—but these basic rules will nevertheless be of interest because so many engineers are currently taking their own "Progress" photographs with a personal camera.

Picture-making is essentially a simple operation with proper equipment—although a certain amount of technical knowledge and actual experience is frequently an important adjunct in getting the best possible pictures. It seems reasonable to assume that the average engineer interested in taking record photographs of his work is already acquainted in a general way with the elementary operation of a camera and the principles of the photographic process. Main attention can then be given to such factors as image sharpness, lighting and exposure.

Image sharpness is one of the most important considerations in photographs made for engineering purposes and in order to achieve this desirable attribute, several different factors must be taken into consideration. One contributing element is the image size or size of the camera which is used. Obviously, if critically sharp photographs are desired, the larger the original film negative is, the finer, relatively speaking, will be the detail in the final photograph, although there are naturally practical limitations which restrict the use of exceedingly large cameras. For this reason, many professional photographers use cameras taking an 8x10 inch film, and with proper lens adjustments, as explained below, obtain an exceedingly crisp, sharp representation of the image. For most record photographs, however, it is not necessary to use cameras of this size and for the majority of conditions, the average personal camera taking 2 1/4 x 3 1/4" or 3 1/4 x 4 1/4" photographs will be entirely suitable. With the trend toward miniature cameras in recent years, there has been noticeable preference among many photographers for cameras taking "double

frame" pictures, approximately 1x1 1/2", on 35mm. miniature camera film. These cameras are ideally suited for many types of work and provide the advantages of compactness, low film cost and surprising depth of field (see below). However, these gains are out-weighed to an extent by the necessity for enlarging the negative to meet average requirements insofar as the actual use of the photograph is concerned. It must furthered be remembered that an 11x14" enlargement from a double frame 35mm. negative can not be expected to show the critical sharpness and definition provided by a contact print from an 11x14" negative or perhaps an 11x14" enlargement from an 8x10" or 5x7" negative. Perhaps the best conclusion to be drawn from any consideration of the cameras that can be used is that an attempt should be made first with whatever small hand camera is available. Then, judging from the results obtained, a change in equipment to larger or smaller size film negative may be desirable.

Another contributing factor in the matter of image sharpness is the quality of the lens used on the camera. For really accurate record work, a good anastigmat lens should be used, which will assure a picture with flat field, good definition and freedom from common lens faults. Here again, a lot depends upon how strict the requirements are and it may be that in some instances a simple and inexpensive box camera will do the job adequately. It must, of course, be remembered that box camera lenses provide relatively small apertures and that their subject range is consequently limited unless time exposures are used. Even then the quality of the image produced can not be compared with that formed by a good anastigmat lens.

It may seem trite to include the matter of focusing in a list of factors which control image sharpness. Nevertheless, out-of-focus pictures are perhaps one of the most common amateur faults and even with more experienced photographers, focusing is a camera adjustment that is sometimes neglected. It is a particularly important factor in that many record photographs are made with the subject near the camera and under such conditions there is a shorter range of the subject rendered sharply by the lens. This range of subject in which things are clearly defined is referred to as "depth of field," and it is obvious that when depth of field is small, as with nearby subjects, focusing must be done carefully. In many instances it is advisable to use a supplementary lens, or so-called "portrait attachment," when

small objects must be photographed so that a relatively large-sized image will be produced on the film negative. Few cameras, for example, permit copying at a 1:1 ratio, and when photographing small objects, any gain in image size is a distinct advantage. If critical work is contemplated, it will be found distinctly helpful to obtain and use a camera which is fitted with a ground glass back, so that careful composing of the subject and critical focusing may be carried out before the actual exposure is taken. The popular reflex-type camera, of which there are several makes on the market, does this job fairly well by giving an image on ground glass of the subject exactly the way it will appear in the final photograph. Depressing the shutter release on such a camera swings the mirror, which reflects the image to the ground glass, out of position to allow the lens to project its image directly on the film.

The depth of field, mentioned above, is also affected directly by the size of the lens opening used when the exposure is made. With the lenses used at a large aperture, the depth of field is very shallow and only a short range of the subject is clearly and sharply defined on the film negative. As the lens is "stopped down," an improvement is evident. Consequently one of the standing rules to be guided by when striving for image sharpness is to use the smallest possible lens opening when the subject extends over a considerable depth. Thus, in taking a photograph of a room in which all distance between 10 feet from the camera and 50 feet from the camera must be kept sharp, a small lens opening, perhaps about f16, should be employed, with the camera focused approximately at the center of the limiting distances—approximately 25 feet in this particular example. On many cameras, a depth of field scale or dial is built in and can be used to indicate quickly the largest lens opening that can be used without interfering with the image sharpness over the desired picture area. Of course, the use of a small lens opening immediately involves the presence of considerable light or a long exposure. The use of the newer high-speed films is of considerable help when lens openings must be small, shutter speeds fast, or light intensity is low, as mentioned in greater detail below.

It is difficult to make generalizations about the lighting to be used inasmuch as a different condition is met with practically every individual subject. However, three main classifications can be established: (1) outdoor subjects in daylight; (2) indoor subjects, generally small in size, illuminated by photographic flood lamps; (3) indoor subjects in normal room lighting and outdoor subjects at night. Outdoor exposures are usually the simplest as there is generally ample light for short exposures at normal lens openings. However, when record pictures are made to show progress on a project, there is frequently considerable variation experienced from day to day in the intensity and direction of the light. The more this can be avoided the better will be the resulting comparison of photographs inasmuch as differences in lighting frequently tend to show differences in the subjects that do not exist to the extent indicated. Some compensation can, of course, be made for variation in light intensity by changing the shutter speed or the diaphragm opening of the camera used. A good exposure meter of the photo electric type is also a helpful tool in this connection as with it light intensities can be quite accurately judged and appropriate adjustments made to the camera. The table reproduced below, which is based on Plenachrome and other "chrome" type film, will give an idea of the approximate changes in shutter speed or lens opening which can be made to compensate for variations in outdoor light conditions. The exposures cited in this table refer to average scenes in the open and might require further modification with unusually bright or dark subjects or when faster or slower films are used.

— Exposures in Fractions of a Second —

Light Conditions	f4.5	f5.6	f6.3	f8	f11	f16	f22
Intense Sunshine	600th	400th	300th	200th	100th	50th	25th
Bright Sunshine	300th	200th	150th	100th	50th	25th	10th
Cloudy—Bright	150th	100th	60th	50th	25th	10th	5th
Dull—Cloudy	60th	50th	30th	25th	10th	5th	1/2
Very Dull	30th	25th	15th	10th	5th	1/2	1

Exposures with photographic flood lamps should be made with panchromatic film which is sensitive to all colors and which can, therefore, make efficient use of the light available. The high-speed, panchromatic films recently introduced, such as Superpan Press and Superpan Supreme, are ideal for this purpose. Such photographic flood lamps are carried by regular photographic dealers and are provided in three sizes which vary as to light intensity and useful life. They differ from normal Mazda lamps in providing light of high actinic value as well as being noticeably very much more brilliant than usual lamps. The placement of such lights is, of course, a subject that is governed to a large extent by individual requirements and personal taste. However, a general recommendation might be made to keep lighting fairly "flat" and evenly distributed for record photographs. Placing one or two lights to each side of the camera and somewhat above will generally give satisfactory lighting arrangement. In placing the lights, it is important to remember that increasing the lamp-to-subject distance greatly increases the required exposure. A lamp at 6 feet, for example, requires 4 times as much exposure as a lamp at 3 feet. An idea of the exposure required for indoor subjects, lighted by photographic flood lamps, may be gained from the exposure recommendations listed below, which are those supplied for Agfa Superpan Press film, one of the newer high-speed emulsions recently introduced.

Lens Openings	Suggested Exposure in Seconds with One No. 1 and One No. 2 Flood Lamp in Agfa Folding Reflectors at Distances Shown.		
	4 feet	6 feet	8 feet
f22	1/12	1/6	1/3
f16	1/25*	1/12	1/6
f11	1/50	1/25	1/12
f8	1/100	1/50	1/25
f6.3	1/150	1/75	1/35
f4.5	1/300	1/150	1/75

* Average box camera setting is 1/25 second at f16.

Values shown above assume registration of light from each lamp on same area of subject, and may require modification according to following conditions:

1. Exposures indicated above may also be used for metal reflectors.
2. Approximately 50 per cent (1/2 lens stop) more exposure should be given if No. 1 Flood Lamp is used in place of No. 2 Lamp.
3. Exposure should be increased 100 per cent (one full lens stop) for Agfa Superpan Supreme or films of comparable speed.
4. Values indicated above are based on presence of light-colored walls or surroundings. Dark walls, curtains or similar surroundings require approximately 100 to 200 per cent (one to two lens stops) increase in exposure.
5. If shutter speeds or lens openings shown above are not marked on your camera, use next slower shutter speed available, next larger (smaller "f" number) lens opening.

The third classification of indoor subjects in normal room lighting and outdoor subjects at night, requires a somewhat different technique, for in such cases either a long time exposure and moderately small lens opening must be employed, or an exposure of perhaps 1/10th or 1/20 of a second may be used if a camera having an extremely fast lens (approximately f2)

continued on page 16

CHICAGO'S MASTER CONTROL

By TOM GOOTEE, Chicago

The NBC Master Control Room in Chicago is possibly not the biggest of its kind in equipment layout or physical size, but it ranks with any other "MCD" of any network in respect to the amount of program traffic handled daily.

The Chicago "MCD" is hidden away on the 19th floor of the Merchandise Mart NBC Studios, just north of the "Loop" district. And from this point NBC programs radiate to some 174 stations, in every conceivable direction from Chicago. Over 5,000 programs are routed through the "MCD" every month, for a total number of hours in excess of 2,000—25 percent of that time actually originating in the Chicago studios.

A block diagram of the Master Desk is shown greatly simplified. Eighteen separate input positions feed the "MCD". Each of the studios feed a program bus, together with network channel feeds from the east and west.

There are sixteen regular outgoing channels from the Master Control. This total includes separate channels for WENR, WLS, WMAQ, and WCFL, all of Chicago. WENR and WMAQ are owned and operated by NBC; but WLS and WCFL are also NBC network carriers for Chicago in addition. WENR and WLS share time, using the same transmitter and frequency. The remaining output channels feed program to the various channel legs of the two networks.

Relays perform all switching operations. There are some 976 relays included in the "MCD" equipment—a total of over 7,444 relay contacts. All switches are "pre-set" and are put into operation when carriers used on previous programs have been released. During a normal day's work there are about 1,000 channel switches made at the "MCD". But during unusual broadcast periods, such as the recent "crisis" preceding the war, that number of channel switches may easily double.

Aside from the specially-built "MCD" equipment, the Control Room is mainly equipped with RCA products throughout. General views of the racks and equipment layout are shown in the accompanying photographs.

A large map of the United States adorns the upper half of the east wall, above the rack amplifiers. Contained on the relief map are several hundred assorted red and blue indicating lights for U. S. stations carrying NBC programs. When any station is taking NBC service from either the red or blue network, a corresponding red or blue light is automatically turned on. Such a map serves greatly to awe the many visitors passing through the observation booths on the twentieth floor.

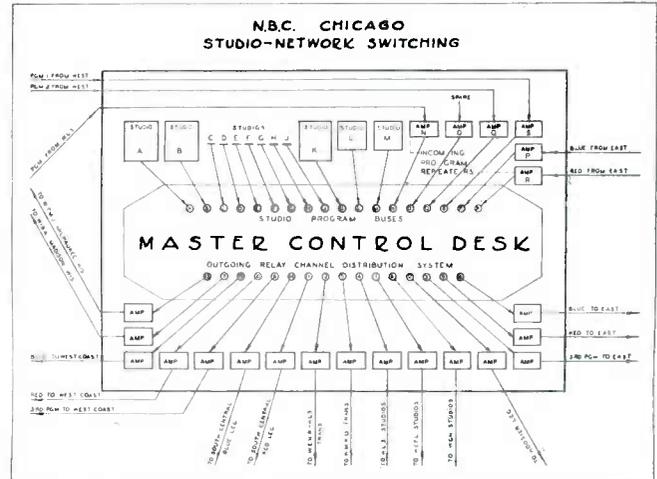
Immediately below the station locator map, and covering the entire east wall, are the studio amplifiers and all equipment related to the studio operation. Directly across the Control Room are the Channel amplifiers for feeding the networks and the local stations mentioned earlier. Also included on these racks are the special network feeds from the east and west which terminate there. RCA amplifiers are used throughout, on both the east and west banks of equipment.

The "Nemo" board is located on the south wall, together with terminal racks for all studio and control room equipment. There are over 2,200 jacks in the Control Room, most of them being on this terminal rack. Also located with the "Nemo" board are some fourteen RCA type 17B Equalizers, for straightening out the amazingly assorted frequency response curves of the regular and special-event "Nemo" locations.

Two recording Volume Indicators, a test oscillator and two test amplifiers complete the general equipment layout of the

Control Room. Not included are the miles of wire and cable strung under floors and through walls and ceilings.

A more complete picture would involve almost every piece of equipment in both the Master Control Room and the Studio Control Rooms—the task of chronicling that information will be reserved for a much later time (by request of the author). However, these notes will probably give the reader an insight into the complicated technical facilities of a key network Control Room.



ATE PUBLICATIONS, INC.

TRUSTEES

W. C. RESIDES
R. D. COMPTON
B. F. FREDENDALL

G. E. STEWART
H. E. MEYER

ATE JOURNAL STAFF

H. E. MEYER	- - - - -	General Manager
G. E. STEWART	- - - - -	Treasurer
R. D. COMPTON	- - - - -	Editor
E. STOLZENBERGER	- - - - -	Assistant Editor
C. D. HAYS	- - - - -	Business Manager

ASSOCIATE EDITORS

Hollywood	- - - - -	R. O. BROOKE, J. KAY
Schenectady	- - - - -	H. C. MOSHER
Washington	- - - - -	A. R. MCGONEGAL
Cleveland	- - - - -	F. C. EVERETT
Chicago	- - - - -	F. C. SHIDEL, T. E. GOOTEE
San Francisco	- - - - -	FRANK FULLAWAY
KFI-KECA	- - - - -	H. M. McDONALD
Denver	- - - - -	R. A. ISBERG
New York	- - - - -	J. LARSON, C. P. DICKSON, T. KRUSE
ATE Network	- - - - -	JOHN FRICKER
Mutual Broadcasting	- - - - -	R. A. SCHLEGEL
Columbia Broadcasting	- - - - -	M. ESCHER

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.

Nothing appearing in the ATE Journal shall be construed to be an expression of the ATE Journal, or the Association of Technical Employees, but must be construed as an individual expression of the author or authors.

First Prize



"TOGETHER HEAVE" on the "Gertrude L. Thebaud"

Photographic Contest

Second Prize



"Way Up In The Andes" - Peru

Another successful photographic contest has ended and the ATE staff is happy to announce the winners and show prints of the winning photographs. The entries were many and varied and a much better grade of photographs than those received last year. All photographs were judged on photographic merit, with such considerations are clearness, subject and general photographic technique.

Ray Lee Jackson, official NBC photographer, served in the capacity of judge of the photos. He was given the entire group of photos and from them chose the three which he believed to have the most photographic merit.

New Yorkers carried away all three of the winning prizes this year. For the second consecutive year Jon Larson, NY Field Engineer, took first prize and a prize of \$20 worth of photographic material this year winning with his photograph, "Together Heave."—on the "Gertrude L. Thebaud." For this photograph Larson used a Korrelle Reflex $2\frac{1}{4} \times 2\frac{1}{4}$ f2.8, $1/100$ sec at f8, super XX—no filter, cloudy—misty.

Second place and a prize of \$10 in photographic merchandise went to Dewey Sturgell of NYSE for his photo, "Way Up in the Andes—Peru." For this photograph Sturgell used a Rolleiflex Camera, Zeiss Tessar f3.5 lens $2\frac{1}{4} \times 2\frac{1}{4}$ inches, on Panatomic X film, red filter, f5.6 at $1/50$ sec.

Third prize and \$5 in photographic equipment goes to R. A. Schlagel of WOR for his photograph "Lobsters." This photo was taken with a Voightlander (Avus) 9×12 cm with Skopar f4.5—13.5 cm lens, Exposure f11 at $1/50$ sec. on Agfa Superpan

press film pack.

There were also many other outstanding photographs which we will try to use in later editions of the Journal. Other outstanding photos were turned in by Joe Conn, NYV; Vincent Barker NY Television; L. L. Caudle, Chief Engineer radio station WSOC, Charlotte, N. C.; F. C. Everett, Cleveland, Ohio; W. Andresen, SE San Francisco; R. C. Mosher, Schenectady.

Third Prize



"Lobsters"

Little Nemo In Ghost Town.

"Hm," said Nemo as he scratched his ear, "This looks like fun. Guess Glasscock and Isberg better leave Estes Park after 'Nature Sketches' and meet Peregrine at Nederland Saturday noon. They can spot the loops and make a survey and propagation test from the Glacier. Looks like Neal will use a beer mug at Berkley. Those little boogers certainly put out, and the AVC is swell for crowd effects. Well, now to get organized."

After carefully checking the equipment boxes, batteries, and mobile unit, constructing a doublet antenna with collapsible poles for use on the Glacier and modifying a pack transmitter to feed a low impedance line, Nemo and the crew set out for the mountains before dawn, prepared for a busy weekend.

After successfully relaying the Nature Sketches program, with an attack of Hay fever the only misfortune; and that mostly due to Al hearing the ranger mention a certain species of mountain flower; the mobile unit set out for Nederland. They hadn't gone very far when they encountered a wrecked car whose driver hadn't seen a horse in his path as he rounded a curve. After rendering a bit of first aid for some bad cuts and a providing lift to a garage a few miles away, Nemo and the crew had a pleasant and uneventful ride the rest of the way.

When they arrived in the little mining town known as Nederland, they found Peregrine waiting for them. He had arranged for a cabin where power and telephone lines could be run and already had the services connected.

At lunch they decided that KDRA on 1696 KC would be set up at the cabin and an ultra high frequency program receiver would be used to receive KEJJ, the 25 watt mobile rig on 31.22 M. C. which would proceed to Caribou, a deserted old mining camp on a plateau above Nederland and in direct line of sight of the South Arapahoe Peak above the Glacier where the broadcast was to originate. KEJJ would relay KEJD on 37.02 mc, the pack set on the Glacier, to KDRA at Nederland.

Several hours later the Mobile Unit had labored over the washed out rocky trail to Caribou. It was a hard pull in low gear and much of the road had to be cleared of rocks and trees. A likely location for the mobile unit was found in a clearing between two tall weather beaten timberline pines which were located so that transmitting and receiving doublets could be easily erected. In a short time little Nemo had the antennas up and KEJJ on the air for schedule with KDRA. Signals at both locations were satisfactory but some interaction was noticed between KEJJ and the 37.02 test from the pack set KEJD, necessitating further tests and relocation of the receiving antenna.

Nemo was too busy climbing trees to notice that the sky was rapidly filling with a swirling mass of dark storm clouds. When the storm broke, the sky seemed to split wide open with a blinding flash and a crack of thunder. Nemo was drenched to the skin before he could get several pieces of equipment and himself into the mobile unit, the seats of which were already soaked by the rain that came through the open windows. The storm lasted about an hour, and then was over as abruptly as it began, with only a low rumble as it moved down the canyon and a brilliant rainbow in the sky to mark its path. The sandy soil and rocks soon were dry again and the cool mountain air was clean and fresh.

"Well," said Nemo, "Guess that's that. I wonder what that

trail is like coming up here. It certainly didn't look like it would take much more washing to put it out of commission for good. It's getting late so I'd better have a look see and get down to Nederland and a bed before dark."

Nemo didn't have to go very far to find that his fear of a washout was a reality. He stopped the Mobile Unit just short of dragging the differential on a high center and there was no way to turn around. Only one thing to do and that was to back up the steep and rocky grade. Further reconnaissance on foot convinced him that a return to Nederland that evening would be very hazardous and unwise and a return trip would be much worse.

After checking with KDRA Nemo decided to stay on location and make himself as comfortable as possible. Fortunately he had some cookies and fruit that were purchased at Estes Park so the fear of hunger did not daunt him.

The business of sleeping in the Mobile Unit wasn't very practical because it would be necessary to sit up, so he began looking for a more comfortable shelter.

He remembered seeing the weather beaten ruins of a shack near a crumbling mine shaft not far away, so with the taurp, the food, and what personal effects he had, he started down the hill.

The shack was sway backed and leaned crazily toward the east at an angle of about ten degrees. The floor had nearly all rotted away and there were gaping holes in the roof. Remains of an old couch stood in one corner and two legs of a table were in the middle of the floor; a child's shoe, rodent eaten and weather worn lay in another corner; a cracked china dish labeled Cornwall, England, was on a shelf by the chimney. The place evidently had been plastered because the lath still clung to the studdings like ribs to a skeleton.

"Whew," said Nemo. "This wouldn't be any place for a superstitious fellow. Well, some pine branches on the floor in the west corner shouldn't be a bad bed and the walls and roof look tight enough to keep out the rain."

A comfortable bed was soon satisfactorily made, and with the taurp for a cover, Nemo was confident of luxurious rest. It was nearly dark by the time Nemo had the bed constructed and part of the food consumed so for the lack of anything else to do, and because he was tired anyway, he hit the hay. Sleep came quickly, with the sighing of the wind in the pines and the pungent scent of fresh crushed pine needles in the air.

Several hours later Nemo was startled by a pack rat scurrying across the floor, rustling the sack the food was in in its haste. The eerie light from a wisp of a moon filtered in through the sagging door. Nemo yawned. The sagging door creaked as the breeze became momentarily stronger. Nemo shuddered and closed his eyes, but almost immediately snapped to a sitting position with hair on end when he heard the springs in the old couch creak as though some one were sitting there.

"Who—who's there" called Nemo in a husky whisper, "what do—do ya want?"

"I 'ave come 'ome," responded a ghostly voice that sounded like one side of a line was open. "Beggin' yer pahdon sir, wat be ye doin' in me 'ouse?"

"I—I don't understand. I came here to sleep and I thought it was deserted. But I'll go right now if you d—don't mind!"

continued on page 12

WASHINGTON

By A. R. MCGONEGAL

An entry in WRC's transmitter log, dated September 10, 1939, and signed by S. E. Newman: "Note—While taking transmitter readings this evening, discovered a snake about ten inches long and half inch in diameter in front of transmitter. Promptly pursued said snake under storeroom lockers and dispatched same to the realm of snake heaven. Since all transmitter room doors were closed, its means of entrance remains a mystery." Sammy fails to state whether or not it was pink one.

Washington's control room presented a peculiar sight to a group of visitors on a recent evening. As the guide led them in front of the control room window, they were startled to see the entire evening shift down on its knees crawling around the floor. They watched the performance for a while and left, the guide as mystified as his charges. The cause of all this was a cricket, which while harmless enough in any other situation, had goaded the control staff almost to madness by emitting a 3,000 cycle chirp. A search for cross-tone on all income and outgoing circuits availing nothing, someone finally identified the sound. An intensive search by all hands finally brought the culprit to light.

Recording facilities have been doubled during the past month by the installation of two new Presto turntables, equipped with the latest wide-range RCA cutting heads and RCA recording amplifiers. All we now need is a good recording technician.

Shortly after 1 a. m. on a recent evening, the Control Supervisor, leaving for home, was called back by a ring on the Nemo loop PL board. It proved to be from the Water-Gate, which is the spot beside the river where the National Symphony Orchestra plays its outdoor summer concerts. Getting no answer, the supervisor checked the line and found it shorted and grounded. He left the key down to keep the buzzer quiet and left, intending to call in the wire-chief the next day. But about two a. m. the buzzer sounded again and the night maintenance man on investigating, found that the short was cleared. The mystery was cleared up next evening when the papers published pictures of unusually high flood waters, which at high tide had overflowed the sea-wall and shorted our loops. Our mysterious caller had been Ol' Man Potomac himself.

The softball team is in the midst of a hotly contested series with the Washington Correspondents. The Correspondents are ahead, 3 games to 2, at the moment, but the NBC athletes? intend to put the scribblers in their places by taking the next couple of contests. Scores of the individual games have run into such astronomical figures that space limitations prevent them from being published in the Journal.

Control Supervisor R. L. Terrell reports that during a recent electrical storm a "fire-ball" discharged from the lighting fixture and struck his small son, Georgie. George, badly shocked but otherwise uninjured, told his father that he didn't mind the electricity. He could take that, he said, but please open the window, he didn't like the smell of burned insulation.

One of our engineers reports lunching at a soda-fountain next to a man who ordered doughnuts and coffee, and then asked for the mustard-jar. Spreading a liberal helping of mustard on his plate, he proceeded to dunk his doughnuts therein. Well, there's no accounting for tastes.

And now for vacation news—

A. E. Johnson, Engineer in Charge, left on his vacation immediately following a trip to Hyde Park with the President. At present his whereabouts are unknown, but with all the excitement in Washington over the war, he can't be far away.

B. E. Stahl, WRC Station Engineer, is on a motor trip through New England and Pennsylvania, with a stop-over in New York for the customary visit to the Fair.

Walter Godwin, SE, is visiting his old home in North Carolina, as all good Tar-heels must do at least once a year.

Dan Hunter, WRC TE, has been visiting at Front Royal, Va., and the World's Fair.

H. A. Wadsworth, WMAL Station Engineer, is in New York for a brief holiday.



"Oh—Mrs. Jones" — H. A. Wadsworth,
Station Engineer, WMAL.

WMAL . . . Waddy Wadsworth searching for spacious auditorium to show recent vacation movie films . . . has projected them for thirty separate audiences so far . . . How about those shots of Fanny at Virginia Beach, Waddy? . . . Charlie Fisher grumbling about increased price of bird seed due to "War in Urup" ??? Eddie Burg recovering from acute case of insomnia caused by overdose of war news . . . reports seeing German submarine in Chesapeake Bay on recent fishing trip . . . Better lay off of that "Old Overjolt," Eddie! . . . Bill Simmons buying new roll of Verichrome.

CLEVELAND

By F. C. EVERETT

This information probably won't cause much excitement in mile high Denver, but research has led to the conclusion that the top of WTAM's new vertical radiator is the highest point in the state of Ohio. The 470 foot steel structure rests on a ten foot concrete base and the whole assembly is located on a point which is 1185 feet above sea level. This makes the grand total above sea level to the top of the tower 1,665 feet. The nearest competitor is WLW and a close competitor they are, too.

WLW uses a much higher tower, because of a longer wavelength, and it has a total height of 831 feet. The terrain there is some 830 feet above sea level, giving the total height computed on a sea level basis as 1,661 feet. This makes WTAM's tower the better by some four feet!

As the highest thing for miles around it overshadows the buildings of adjacent Cleveland and Akron and its beacon light serves as a guide for airplanes that can be seen for miles. The ground around the station is about 500 feet higher than the airport, not considering the tower height.

Thanks to Bob Daily of the news and publicity department for the figures on this situation.

Along in 1915 and 1917 Witham at NAO and Walker, NAN, naval radio stations at Charleston, SC, and Beaufort, NC, worked each other daily. When the Kaiser became restless both were moved to the fleet at Hampton Roads for duty; first on the flagship "Pennsylvania" and later on the second flag "Arkansas." However the partnership dissolved when Witham went to the "Texas" when a first class second hitch man was needed. However, they still maintained contact with each other when both the Texas and Arkansas went over to become a unit of the American squadron of the famed 6th battle squadron of the British Grand Fleet, and were QSO from time to time.

But Bill eventually took to Holland and his wood chopping and all hands came home. Walker was so full of the Navy that he headed far from the briny deep and about 10 years ago became part of the WTAM personnel and has often wondered during the intervening years what became of Witham. A couple of years ago Makinson joined the WTAM group and having formerly been with AT & T he knew a Witham at Cuyahoga Falls, Ohio. All this time Walker and Witham had been within about 15 miles of each other; Walker at a broadcasting station and Witham night supervisor with the telephone company with stations and equipment galore under his direction.

Two men stared at each other one Sunday P. M. when Witham walked in while Walker was on watch. Twenty years had made quite a little difference, but the boys agree that it is a small world, after all.

In order to furnish Cuyahoga County with an accurate map of itself, the WPA, Case School of Applied Science, Cuyahoga County and the State of Ohio have pooled funds and men to make a careful survey of the territory and to run base lines and establish monuments for future reference.

In order to do this work properly, it is done at night to prevent trouble from heat shimmer in the atmosphere and to keep the measuring tapes from expanding too much, even though they

are made of a special metal. To work at night, the various triangulation stations are marked with lights.

Imagine the consternation of the transmitter crew the other night when they looked in the back yard and saw a red glare lighting up the vicinity of the tower legs. Considerable blood pressure was expended before it was discovered that it was merely a Neon light on the triangulation station mounted on the WTAM property. The three men involved now have faces almost as red as the Neon tube and are known as the "Red Hot Boys."



NATIONAL AIR RACES - CLEVELAND—Mr. A. M. McMahon, Cleveland Field Supervisor, showing equipment set-up at the Air Race Administration Building.

CHRISTMAS ISSUE

Plans are now under way for our special Christmas issue of the Journal.

Let's make this year's holiday issue the best in the magazine's history.

Advertising should reach New York not later than November 15th so that the magazine will come out promptly on Dec. 1st. Help us and help yourselves—Now!

*New Jersey's Leading Ham Parts
Distributor*

ARRON LIPPMAN & CO.

246 CENTRAL AVE.

NEWARK, N. J.

PATERSON:
79 Bridge St.

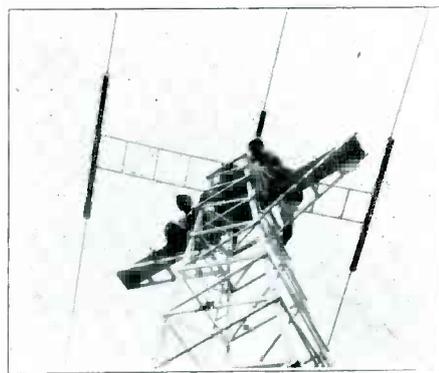
NEW BRUNSWICK:
54 Albany St.

CHICAGO

By F. C. Shidel

As the Journal news deadline date rolls around again a canvass of the happenings for the past month seem to be confined more or less to vacation experiences. The vacation list is now down to the very end and so far Chicago can produce only one engineer brave enough to endure a trip to both fairs, namely Marvin Royston . . . Lester Washburn spent a quiet vacation in Wisconsin just resting . . . Tom Gootee, he of the Spanish War QRM ministry, will probably be QRM'ed from now on . . . He got himself married a few days ago but has succeeded in suppressing the news quite well, so he thought . . . The NBCCA tennis title will no longer concern itself with the engineers as our Joe Alusic was took by George Bolas of Sales, 6-3, 6-4 . . . The ping-pong eliminations are running along nicely and here again we have to record defeat but proudly . . . Conrad run up to Mr. Nickey of the mail room, the count being 21-18 and 21-19 . . . The finals of tennis and ping-pong will be run off at the NBCCA outing to be held at Lincolnshire Country Club on September 21st . . . NBCCA President Schoenfeld and various activity chairmen are busily engaged in getting details set for a big time at the outing . . . Chairman Horsman of the Riding Committee has organized a pre-outing riding party for his addicts for September 15th . . . He has arranged for the ranch boys (those coast to coast saddleiers) for entertaining the party . . . Personally I think they have been engaged for coaching purposes so as to insure some good form at the Lincolnshire outing . . . Woody Lahman has joined up with the 8mm camera fans . . . has an Eastman camera and Keystone projector . . . Says first roll of film came out swell but is worried because he thinks it was due to beginners' luck . . . Too bad he didn't have the camera for his vacation trip through Canada . . . Chas. Butler fooled us all and deserted his old custom of visiting Hyde Park, Mass. Going instead to Yellowstone and visiting relatives in the Middle West . . . Henry Meyer and wife stopped over in Chicago between trains on their return from the west but only long enough for a telephone conversation with a couple of us . . . George Maher and family have left for a vacation trip to the Maher farm at Wynne, Ark. George says he is going to make a general checkup and put a new roof on the house . . . You can't drive nails with a movie camera, Maher . . . Paul Clark spent three days painting his new picket fence and on the third day of labor a wind came along and stippled his job with sand . . . Well, makes a good place to scratch matches . . . Ed Bernheim recently looked over 2,500 pennies for mints to complete his coin collection . . . Vern Mills is the owner of the jackpot . . . Treager of WJZ transmitter attended our general meeting while visiting the boys here in Chicago studios . . . Bob Whitnah is repeating this year going to Colorado again for his vacation . . . Jon Larson in at the ATE office and the studios on his way west . . . The stamp collecting addicts wiggled promises from Jon for some choice stamps . . . The local DX hams were disappointed to hear that Larson will have no time for ham radio and there went the chances for a few new countries in the DXCC . . . Ray Bierman has a new 100X receiver . . . He is also collecting wire and feeder spreaders for a contemplated sterba curtain antenna . . . Platz has a Hammerlund exciter unit . . . Sturgis has a tower built but as yet has not bought the rotator . . . Conrad has a new vertical doublet which is much better

than his long wire Zepp when conditions are bad . . . Glenn Webster is on vacation so I have no official ham net dope . . . Harold (High Power) Jackson and family have just returned from a trailer trip vacation through the West with stop overs for side trips in Estes Park, Pike's Peak and Colorado Springs. Harold visited the KOA gang while in Denver. He reports a very fine visit with Harold Austin who used to work WENR with Jackson. Boys Town, Nebraska, was a point of interest on the return trip. Total mileage 2,800—now planning next year's trailer trip.



No bear drove these two monkeys into this position . . . Conrad left and yours truly right, adjusting the new plaything at W9CIU

ON THE BAND CIRCUIT

. . . Larry Clinton, NBC and Victor recording band leader, will fill a four-day return engagement at the Million Dollar Pier, Atlantic City, Aug. 23-26. Following that he opens at the Paramount Theater, New York, for a two and possibly three-week stay . . . Bea Wain, former vocalist with Clinton, will soon be heard via the "Hit Parade." . . . Glenn Miller, NBC and another Bluebird recording bandsman, has established an all-time attendance record at the Glen Island Casino, shattering the previous record held by Larry Clinton. He closes there August 23 and will embark on a theater tour . . . "Fats" Waller, featured on NBC airplanes and Bluebirds, is as prolific as he is portly. He returned from a European road tour, the second this year, a couple of weeks ago the composer of a new symphonic suite which he recorded in England for "His Master's Voice." Entitled "London" Suite, the work consists of six individual pieces based on sights in the English capital. Paul Whiteman may give its first American performance at Carnegie Hall . . . Waller also has just recorded a new tune, "Honey, Hush," which Irving Berlin will publish . . . Shep Fields, renowned for his "rippling rhythm," is relinquishing his famous bubble-bowl for a newer one. He is going out to the Glass Exhibit at the New York World's Fair next week to have one made to order.

Tom Gootee - W9AUN-W9E0A
Woody Lahman - W9AUN-W9E0A
Chas. Butler - W9AUN-W9E0A
Paul Clark - W9AUN-W9E0A
Ed Bernheim - W9AUN-W9E0A
Vern Mills - W9AUN-W9E0A
Ray Bierman - W9AUN-W9E0A
Platz - W9AUN-W9E0A
Sturgis - W9AUN-W9E0A
Conrad - W9AUN-W9E0A

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

We Welcome Members of ATE to
inspect our new home at

111 East 52nd St.

Our recent expansion now better enables us to
meet your needs for standard makes of:

- Radios
- Cameras
- Records
- Electrical Appliances

ESTABLISHED 1905

Rab-Sons

The Personal Attention Store

MUSIC and CAMERA CO., Inc.

111 East 52nd St. - New York City
Tel. CInrle 7-0070

LITTLE NEMO IN GHOST TOWN

continued from page 8

"Oh—make yerself at 'ome. It isn't much of a place but Sarah Ann and me baby daughter Faith made it a home back in '70 before the epidemic."

"I think I—I'd b—better be going," gasped Nemo too petrified to move.

"Oh calm yerself. I'd pour ye a pot o' tea, I would, if I had the makin's. What's yer business, silver or gold? Do ye figger on opening the diggin's agin?"

"N—No sir, I came to arrange facilities for a broadcast from Arapahoe Glacier tomorrow morning."

"Oh, yer one of them radio nuts. Well, I giss yer not up to mischief and pretty harmless. You mortals sure do things the hard way. We of the spirit world don't need no contraptions sech as radios 'n wires. Telepathy—that's a trick ye haven't learned. But seein' as how we got along so well so far, let me tell you the story of this town. 'Taint offen I have any one to talk to in the mortal world."

"O—O K," was all Nemo could manage to say.

"Well, sir, twa late in the '60's when feller named Conrad discovered the Caribou mine right o'er thar. He was from my home town, Cornwall, and when he hit it rich he wrote home to get a colony started. That's when me 'n Sarah Ann come over. We built this house and here our daughter Faith was born. Things went along fine in those days. Silver a dollar an ounce and they's lots here that's not been touched yit. The colony grew and at one time they was 3000 people here diggin the ore. Why they's about sixty mile of tunnels through these here hills in the mines I knowed. But if hit warn't one thing hit war another and most of us were good Christians too. Place burned out three times and my people weren't acclimated to the altitude. In '74 they was a plague of Typhoid and then we buried Faith on yonder hill. The next year it was Sarah Ann with pneumonia. Soon most all the rest of the kids and—

"Yes, sir, if it warn't fer greed my daughter Faith would be alive now with grandchildren around her."

"Later place was rebuilt but silver went down till twarn't profitable so gradually the place was abandoned. Maby Roosevelt fixed that again when he hiked silver judging from number people I seen lately."

"Greed's what's ruined this place and brought on the fires and sickness and death. Greed for precious metals and no appreciation for human values. Caribou could have been county seat if people weren't so greedy. As 'twas Boulder and Denver prospered because they had diversified interests and business rather than one means of livelihood. Let that be a lesson to you, young man—anything based on greed is wrong."

The moon slipped behind a cloud, the springs creaked and Nemo gave a sigh of relief. "Must have been something I ate," he said unconvincingly as he gathered his things to spend the remainder of the night sitting in the mobile unit on the hill.

NEW YORK

Now that the crisis is over and the war well established, operations are back to normal. We feel very proud of the way the operating staff handled itself during this period under trying conditions. Twelve and sixteen hour watches were common. The Master Control supervisor looked as busy as the proverbial one arm paper hanger with the hives. Overheard during the crisis, "the program originally scheduled to be cancelled at this time will not be heard." Not overheard, "we interrupt this bulletin to bring you a special bulletin."

SCHENECTADY

By H. C. Mosher

The fall outing of the WGY Staff was held September 16 at Totem Lodge on Burden Lake, N. Y. The congenial atmosphere around the grounds of Totem Lodge together with a perfect day made the event a great success.

The program of events for the day consisted of a softball game, horseback riding, swimming, golf, tennis, and many other activities to satisfy the individual taste. The softball game between the team from NBC A. A. and the WGY team was the main event. Some of the N. Y. gang were detained on the way to explain to the state police why they were in such a hurry. After a considerable delay the game was started with some of the local boys assisting the N. Y. gang. Naturally with that help the boys from down state were able to keep in the lead until the beginning of the seventh inning when their full team went into the field. They came through with flying colors and a winning score of 12 to 11.

When the game was over some changed into swimming togs for a plunge into Burden Lake while others took up golf or some other sport. At 7:30 p. m. we all gathered in the dining hall for a delicious eight-course chicken dinner. Then Mr. Katz, proprietor of Totem Lodge, invited the group to stay for the evening's entertainment—a floor show and dancing in the music hall.

Every one had a very enjoyable time but found the day much too short to get well acquainted with the party from the big city. We surely did enjoy having them with us and sincerely hope they and more of the others will return in the future.

It was about one year and six months ago that the ATE Journal carried an item about the transfer of Silvio Caranchini from the announcing staff to the technical staff at WGY. Although he is the youngest member of our family, we have come to cherish his friendship and our association with him. It is with much regret that we have to announce that he is no longer with us, due to seasonal inactivity. We all sincerely wish him very well in all his future undertakings and trust that before long we shall have him back with the ATE.

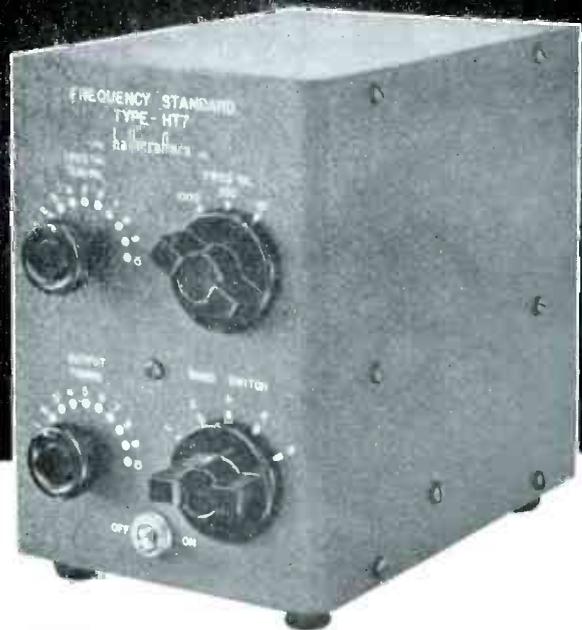
Al Knapp (FE) did not go to Maine for his vacation this year. He and Mrs. Knapp had a very refreshing rest at their camp in the Adirondacks.

MacDonald S. McIlwain (Mac) (TE) attended the WCY outing and was a roofer for the N. Y. team along the third base line. In the second inning a bat slipped from the hands of a visiting batter, traveled some thirty-odd feet, and struck Mac over the right ear. The physician examined the scalp wound and said he had a slight concussion. At this writing we are glad to report that Mac is O K. We sincerely hope that no further trouble will develop.

JOURNAL COVER PHOTO

Photo montage by Joe Conn, NYV, showing a portion of the Radio City Television Engineering personnel. Since most of the publicity photos to date show a rear perspective of the cameramen, they got together and decided to do their own publicity work.

Crystal Controlled FREQUENCY CHECKER



FOR Checking transmitter frequency •

Checking receiver calibrations • Calibrating receivers • Bandsetting receivers • Locating signals for skeds • Setting ECO frequency.

The HT-7 Frequency Standard consists of a stable crystal oscillator providing either 1000kc or 100 kc output, together with a 10kc multivibrator and a harmonic amplifier. By means of a switch on the front panel, harmonics of 1000kc, 100kc or 10kc may be selected. With the output of the Frequency Standard fed into any good communications receiver accurate marker frequencies at 1000kc, 100kc or 10kc appear across the dial. The frequency of the 100kc crystal is adjustable over a narrow range, so that it is possible to set its frequency to zero beat with either WWV or domestic broadcast stations, and once set will maintain its frequency accurately over long periods of time. Dimensions: 5½" x 8" x 7½" high. Designed for operation on 110 volt 50-60 cycle. Price \$29.50. Available from Your Parts Jobber on terms.

the hallicrafters inc.

CHICAGO, U. S. A.

WORLD'S LARGEST BUILDERS OF AMATEUR COMMUNICATIONS EQUIPMENT

NEW YORK

By Ted Kruse and Jon Larson

A dinner was held for Bob Schuetz formerly of New York Audio Facilities who has recently been transferred to Hollywood as manager of transcription service for the Electrical Transcription department west coast division. Mr. Hanson presented Mr. Schuetz with a cigarette case and appropriate speech at the dinner given by members of the engineering group.



Reading from left to right: Gabrielson; Nixon; Clark; Meade; Lynn; Hathaway; Close; Fredendall; Castle; Stewart; Schultis; Bosler; Nolan; Phelan; Schuetz; Hanson; Thatcher; Gilcher; Arnone; Opsal; Guy; House; Buddick; Milne; Looney; Fitch, and Strang.

Montilla has recently flown to Puerto Rica where he was called by the death of his mother.

Don Castle reports a nice trip to the West Coast.

This writing finds three proud fathers in Engineering: Fritz Rojas and Bill Trevarthen a daughter each and Mal Lewis a boy.

We hope you people have read the new constitution over carefully. Of ten people we asked, only five had read it in its entirety, but we voted on it. Ah us!

A new addition to Recording was Victor Tervola. Vic joined NBC during the excitement and had to put in long hours right away. That's what we call breaking a man in right.

While on vacation in Hollywood, Andy Waddell attended a housewarming party thrown by Carl Lorenz. Among those present were some old friends of ours including Charlie Norman, Jake O'Kelly, Bert Capstaff and Charlie (Speed) Rushon.

Let this be a reminder that the World's Fair is still going strong and if you expect to visit it before it closes for the year you will have to hurry, hurry.

We understand someone sent Doc Dickson a loving cup for making the best recording of the season in a foreign language, too.

It was noted by Compton the other day that radio service men are now generally referred to as "radiotricians" and that a new word has been registered in the Patent office designating those who service television receivers as "teleticians." A combination would certainly be something less than "tradition."

Bob Shelby, television boss, found himself in a very annoying circumstance recently when a bad case of laryngitis overtook him on the day he had to deliver a paper to the I. R. E. He managed somehow and the paper on a special frequency modulation method was well received.

Russ DeBaum, NY Television maintainance, has had his hands full during Ray Monfort's vacation. Lest Ray suffer an expansion of cranium the entire television group was surprised

to learn that he had been on vacation. Woe, woe, thus it is with most of us, we think we are important but our vacations pass unnoticed.

G. E. "Stew" Stewart, NY Recording, has been having a much needed vacation. Some say the change in loading on the fifth floor studio section alarmed Rockefeller Center engineers.

That Coca-Cola dispenser on the fourth floor saves a lot of Company time, but we miss the cheery little chap who used to bring the "cokes" around.

Death really took a holiday recently when the play "Death Takes a Holiday" was stopped in the middle of rehearsal in 3H due to a lack of agreement as to rights and such. In its place a feature film "Murder is News" provided the hair raising entertainment for television. Seemed we couldn't get away from the death angle.

Postponement of the National Geographic Society-University of Virginia expedition to the South Seas, caused by the outbreak of the war and the government's recall of the U. S. Coast Guard cutter Hamilton for active duty, also has forced the suspension of the National Broadcasting Company's plans for broadcasts from the scene of explorations. Jon M. Larson, NBC field engineer who was to have accompanied the scientific party to conduct the broadcasts, was at work installing special antennas aboard the 328 foot vessel when the cancellation of the trip was an-

continued on page 17

THE HERBERT LEROY RICE GENERAL INSURANCE AGENCY

We handle insurance of all kinds using only the best companies with highest possible ratings for stability.



Quality business is entitled to quality treatment accordingly we do not adjust claims. We pay them.

THE RETIREMENT INCOME PLAN

Wouldn't you like to retire and take life easy?—your security assured for life, your family provided for, your future full of opportunity to travel, golf, hunt, fish or whatever may be your pleasure. If you are under 50, particularly if you are under 45 (the younger the better) this is your opportunity to use the N. B. C. deduction plan and arrange for a guaranteed income at age 55, 60, or 65, an income delivered to you by the postman every month as long as you live! You don't have to be rich to use this plan and you get this retirement income for less money than ordinary investment methods require.

HERB RICE

Quality - Insurance - Service

30 Rockefeller Plaza
Suite 3016

Telephone
CI-7-1456

We are glad to submit quotations on any kind of Insurance

WOR

R. A. SCHLEGEL

Congratulations to Stolzenberger on his excellent column in the September issue. Did you write all that while waiting "up state" for your car to be fixed? It appears that Bob Ward and you are members of the same club. Giff Campbell of WOR is on the eligible list with his car troubles with his wife taking an "I told you so" attitude.

Heard on the loudspeaker recently. A dance band announcer saying, "You have just heard I'm Looking For a Boy followed by The Man I Love." Oh well, the Greeks had a word for it.

Ray Lyon knows when to pick his vacation time. Last year he was away during the Hughes' flight and this year the European war crisis found him up in the New England hills where it was reported he did nothing but listen to radio broadcasts.

Cy Samuelson is evidently enjoying his vacation tour of the west, judging from the cards that we have received. I had the same room at Yellowstone. Wonderful view from the window but bad for sleep walkers.

The recent European war crisis had the WOR engineering staff working on a twenty-four hour schedule. Three Hammarlund Super-Pros and two HQ 120s were in contact use for monitoring the various European short wave broadcasting stations. Press Wireless provided most of the foreign short wave pickups. The evening European news broadcasts were recorded by our recording department and then rebroadcast at 11:15 p. m. each evening, thereby giving the public complete coverage of the European situation on a single program. Foreign news programs were presented just as received with nothing being deleted so that the listener was able to hear both sides of the story.

From official sources it was learned that Pat Miller and Ed Scatterday have signed a trade agreement whereby Ed is to receive an RME in return for monetary credits to Miller. This treaty was hailed by certain photography shops dealing in telephoto lens. It was understood that all transactions will be strictly cash and carry. Both parties are well pleased with the accord and it is rumored that the Secretary amateur radio station will now attempt communication in the 14mc region of the amateur spectrum, hitherto inaccessible due to inferior receiving equipment which was acquired following an earlier trade treaty negotiated with Paul Reveal which has since been renounced by both parties. It was pointed out by observers that the renunciation of the treaty still left the door open for further negotiations. Last minute reports from the Long Island sector say that Scatterday had been purged.

From our correspondent on the Jersey shore where many of the WOR staff spend their week ends, it was learned that Herman Berger caught a five and three-quarter pound striped bass. Unconfirmed reports filtering through the New Jersey Ministry of Public Relations state that Paul Reveal and Shirley Davis have been seen in the vicinity where Berger caught his fish. It is believed that they may attempt to duplicate Berger's coup.

Certain elements have recently been at work in an attempt to strengthen the forces of the maintenance department by a tactical maneuver which would add Johnny Cook to the highly mechanized but immobile maintenance division. This move was met with stubborn resistance by the studio engineers under the leadership of Supervisor Hadden, a veteran of many similar campaigns. It is unofficially stated that Hadden had recently signed a mutual assistance pact with several agencies. This diplomatic move was responsible, it is said, for the return of Cook to the studio division. The return of Johnny Cook was hailed by the

studio engineers as a bloodless victory and it was pointed out by neutral observers that strong diplomatic pressure was brought to bear by powerful agencies in order to accomplish this feat. The maintenance forces however made a strong counter attack and succeeded in securing the assistance of Max Urlass, a new member who was formerly associated with Federated Purchaser. It was pointed out by observers that this move met with a high administration official's approval.

Exclusive information from sources close to Eric Herud hint that he has taken the advice of golf strategists, heretofore heeded, and strengthened his grip. Semi-official spokesmen believe that his losses will not be so appalling as he has already reduced his score from 150 to 148.

Jimmy O'Connor won a decisive victory over the oscillator sector of his amateur radio transmitter and it is hinted that he is now maneuvering into a favorable position for a flanking movement on the buffer sector. Although there was a subversive movement within the buffer to remain neutral(ized). On the final amplifier front an electron bombardment sought to relieve pressure on the buffer which was putting up an effective resistance in the grid circuit but it was considered significant in official circles that this would only be of short duration until such time that the electrons could find an effective by-pass. Pedestrians in front of the O'Connor apartment in Kew Gardens gazed anxiously at the doors of that historic structure. Inside,

continued on page 17

NEW CATALOG
available showing complete
line of Presto Recording
equipment, discs and
accessories.

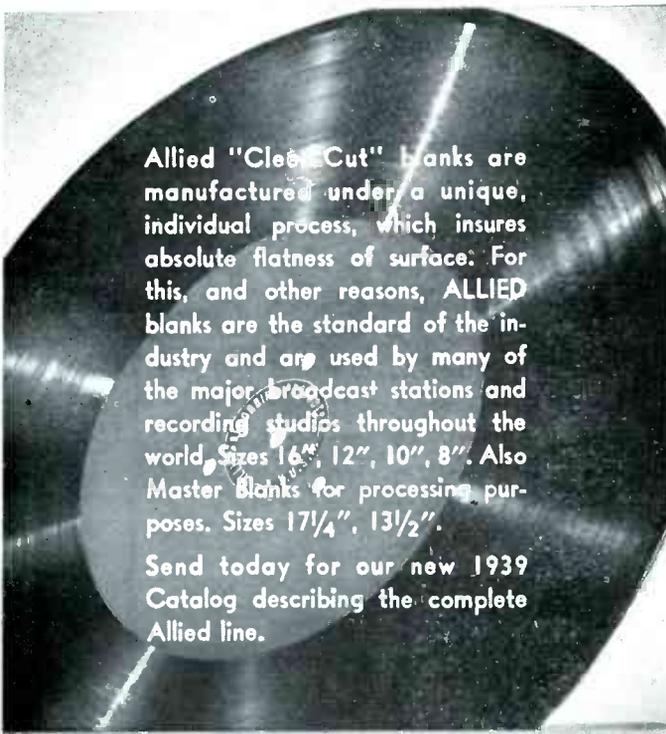
Send for your copy today.

PRESTO

**RECORDING
CORPORATION**

242 West 55th Street

New York, N. Y.



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

The place to buy anything in radio is at

"SUN". - WHY!

Because "Sun" carries a tremendous stock of radio parts, receivers, tubes home radios and records.

Fast, efficient service and at low wholesale prices.

Seventeen years in the business of selling radio only.

Ask for our brand new catalog.

SUN RADIO CO.
212 Fulton Street, New York, N. Y.
Cable Address: SUNRADIO NEW YORK

RECORD PHOTOGRAPHS

from page 4

and loaded with a high-speed, panchromatic film is available. In such cases, it is a choice between the depth of field which must be pictured, the length of the exposure which can be tolerated and the equipment available. When image sharpness is important and the depth of field to be obtained is great, then the best solution is, of course, a moderate sized camera using a small lens opening and a long exposure. When requirements for picture size and image sharpness are not quite so exacting and it is instead necessary to make the picture with an instantaneous exposure, then a miniature camera with a fast lens and fast film provide a suitable combination.

Although they have already been mentioned, the two considerations of exposure and choice of film might be mentioned again to emphasize their importance in any photographic activity. When pictures are taken under standardized conditions over a period of time, exposure is seldom a problem for once ascertained, the best combination of lens opening and shutter speed for the light conditions available can be used for every exposure. However, when light conditions or subject or film are changed, then careful consideration should be given to the exposure that is used in taking the picture. If it is at all possible, an exposure table, calculator or meter should be consulted to confirm the photographer's judgment of the best lens and shutter setting to be used under the new lighting conditions.

In the matter of choice of film, there are but three main characteristics which require attention. The first of these is speed which, as has been pointed out above, is important when light conditions are poor and lens opening must be small or shutter speed fast. The difference between the most recent orthochromatic roll film which are generally marketed and the fastest of the high-speed panchromatic films available presents a factor of approximately 3 to 4 times, a difference that should be considered when determining exposure values. Color sensitivity of film should also be given attention inasmuch as it becomes important when photographing colored objects. Orthochromatic film, which is sensitive to violet, blue, green and yellow, is suitable for the majority of conditions, but a panchromatic film, which is sensitive to all colors, is preferred when photographic flood lamps are used for illumination and when a true interpretation in monochrome is desired of the relative brightness of various colors in the original subject. A third characteristic that is worthy of attention is that of grain size. This is particularly important if enlargements of considerable size are to be made from a negative at a later date. Usually it is difficult to obtain both high speed and fine grain in the same photographic film and, in fact, the fastest films are not the finest grained, nor likewise, are the finest grained the fastest. However, noteworthy gains have been made quite recently in the incorporation of both these characteristics in a single film, and there are today films available, such as Agfa Superpan Supreme, which combine both unusually high speed and excellent fine grain qualities.

Processing of exposed films will not be considered at this point as it is usually a job that is taken care of by a professional finisher or by those who are well experienced in this specialized branch of photography. It should be emphasized, however, that good finishing is as necessary to the making of a perfect photograph as is the proper lighting, exposure and operation of the camera.

In conclusion, there are one or two general recommendations that might be made which should be of value to those taking photographs for engineering purposes. While these suggestions are extremely simple, they are nevertheless important and worth remembering. First, it is wise to provide a firm and steady sup-

port, such as a standard photographer's tripod, for the camera. This is, of course, essential for time exposures and may also be decidedly helpful for instantaneous exposures. Next, it is desirable to take all progress pictures from the same position so that variations in appearance do not occur because the point of view has changed. With many small subjects, a label identifying the object or a small placard placed near the object, serves as a priceless identification years later. Likewise, dates indicated by a card or calendar included in the photograph are usually desirable, particularly in progress photographs and also in pictures of small objects which may later become the subject of patent controversies. Such signs or placards should, of course, be kept near the margin of the picture areas so that they may be cropped out if the photographs are to be used for publicity or other purposes for which the presence of such signs might be considered undesirable.

WOR from page 15

experts on protocol of electron emission were deciding documents which say the tenseness of the situation may be somewhat alleviated by more effective shielding.

Several months ago it was reported by unusually reliable sources that Vincent Barker of NBC television had conquered the fields of amateur radio and it was semi-officially stated that he was seeking Anschluss with photography. This new field is controlled by Gamma, and it is believed that this may cause Barker to retrench temporarily and consolidate his gains. A

WOR engineer named Carter declared unequivocally that the crisis is passing and that the amateur radio populace in the vicinity of Great Neck, Long Island, may expect a continuation of the terrific bombardment by the official amateur station of the Barker Clan. High amateur officials, moreover, concluded off the record that the interference created by this blasting of the ether will lend more drama to the coming winter DX season.

It was learned through one of correspondents that if the A. B. T. would elect a business manager designated by the IBEW that it would be possible for the ABT to increase their earning power by ten to twenty per cent. This was later unofficially confirmed by sources close to the administration but it was stated that this move has been met with considerable resistance by certain dissident groups in the ABT.

It is believed that the ATE of WOR will hold a general meeting sometime during the month of October. This is as yet unconfirmed by high officials.

It is hoped that by next month this person will have all the "it is believed," "it is stated" and "unofficially confirmed" phrases out of his system. Perhaps we will be limited to "Communicques" and official statements!

NEW YORK from page 14

nounced. Larson left San Francisco on August 29 with several hundred pounds of equipment, including two portable transmitters, that were to have been used for the relays. Larson has recently returned to New York with the apparatus, which will be stored until the expedition can be resumed.

THE NEW DAVEN TYPE No. 910

VOLUME LEVEL INDICATOR



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 5 1/4 x 1 9/16".
- ★ FINISH: Black aluminite, dull satin finish; R. C. A. or W. E. gray.
- ★ NET WEIGHT: 3 1/2 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

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.

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.

HOLLYWOOD

By BOB BROOKE

War . . . Heat Wave . . . Fall Show . . .

SUN . . . A week of terrific heat has driven war from the front pages . . . Today the official temperature is 107.2 and a thermometer on the parking lot shows 124 . . . All records for 53 years are broken . . . minimum night temperatures are over 80 . . . All hands think they are back east . . . people sleep by thousands on the beach . . . SF has a reported years high of 90 and the Golden Gate bridge has expanded ten inches with five more feet to go . . . ocean temperatures are over 70 . . . white suits are appearing on people that never wear 'em . . . At Radio City studio temperatures per Harry Alber hold an even 72 . . . on the other side of the "Artists' Entrance" door a blast of 124 greets you . . . Master Control have their lunches brought in and then discover the waitresses hanging around to cool off . . . Musicians bring their wives with them and ladies sewing circles are noted on the first floor . . . Third floor office people have been sent home or transferred to air conditioned space on the studio floor . . . It's odd, but September is definitely the mid-summer of Southern California . . . Hats off to the designers of our air conditioning . . . It runs at peak load day and night and takes it like a breeze or a Ford doing 70 miles an hour (Miv) . . . Mr. Saxton getting lots of service out of the tropical worsteds and crowding out Denechaud and MacKenzie as the studio's best dressed man . . .

WAR . . . The war has certainly taken Hollywood off the front page . . . Everybody talking it . . . Wondering what outfit they'd get in if we joined the fracas . . . Talking over experiences of the last war . . . Doing the same as everybody else in the world but above all unanimous in the belief that we MUST stay out of *this* war . . . Studio shows were rather upset during the period of uncertainty . . . Considerable overtime piled up by the days of 24 hour operation . . . Hollywood supplied the round robin trans-continental Red and Blue with many of our regular late evening sustainers . . . Smaller shows and band leaders pleased and flabbergasted at being released over nearly 200 stations and both networks . . . All round robin service went six thousand miles before being released over our local stations . . . Many people "discovered" the nearly one second time lag . . . With was excitement in the air, special events generally become almost non-existent . . . Buddy Twiss, Hollywood news and special events chief, wracking his brain for something to compete with the war . . . offering NY everything from spud picking contests to first flights to Mars . . . Bud has equipped his office with a tremendous airways map of the West, a three foot world globe, and an inch thick Rand and McNally atlas . . . All of which (except airways map) won't be worth a dime if this war keeps up . . . I haven't a complete list of the boys in our department that saw action in the last World War, but think Jake O'Kelly saw the most action . . . Jake went over with a New York National Guard regiment in the first hundred thousand and took part in all major American engagements . . . Tells quite a story about billeting in an ammunition dump one night and being one of the few left alive (because he ran the farthest and fastest in his underwear) after the place was shelled . . . Frank Figgins was in the cavalry . . . De and Sax were in Navy radio . . . Morris, Adams, Denechaud, and others were in the Army . . . More dope later.

MISC . . . Joe Kay sez I shouldn't report ages of cars . . . Sez his Ford (1935 per last issue) is a darn good car . . . Gee, Joe, I was merely stating facts not defaming the old bus . . . Used only three *pints* of oil on the 5,000 mile vacation . . . Joe reports a Mercury is now the apple of his eye . . . Bob Callam finally off to a vacation after many postponements on account of extra recording room schedules . . . Fergy and Brooke much better at body surfing this year . . . Fergy even tackled some of the tremendous breakers coming in during the end of the Mexican hurricane . . . Veterans of the surf, or something . . . Jake O'Kelly and sister Gertrude to Yosemite and Lake Tahoe for their vacation . . . Carl Lorenz off on his too . . . Mort Smith is in his new house in the valley and spent his vacation getting settled and supervising finishing . . . Ken Hicks in reference recording almost entirely . . . Ken reports operation on his oldest girl Diana . . . all well again . . . Helen Welty working like H . . . up in Sales and hasn't acquired any tan this year . . . Joe Kay's and Andy Andresen's 8mm color of their vacations turned out very well . . . Hope to throw a party some evening and show some of the fine color movies taken by members of our department . . . Mr. Saxton has some fine 16mm color and Carl Morse's reels on his China clipper trip are worth commercial reproduction . . . Jack Benny and Bob Hope due back next week . . . A new Sherlock Holmes series starring Basil Rathbone starts soon . . . Quote—Flash—Eight and a half pound daughter, Clarie, born to the Les Culleys, September 25th. Mother doing fine. Father mixing up the net-works. Unquote.

So Long, I'm going swimming . . . 73.

Home Entertainment Headquarters

Just a few of the many things you'll find at Sun Radio.

ON THE MAIN FLOOR

Amateur Equipment	Systems
Amateur Receivers	Meters
Public Address	Test Equipment
Radio Parts	Television Kits
Radio Tubes	Television Parts
Transmitters	

High Fidelity Tuners

ON THE UPSTAIRS FLOOR

Auto Radios	Portable Battery Radios
Appliances	Portable Phonographs
Electric Clocks	Recorders
Electric Shavers	Record Players
Home Radios	Television Receivers

Phonograph Records

New York's oldest complete Radio organization
Ask for our new catalog just off the press

SUN RADIO CO.

Esr. 1922

212 Fulton St., N. Y. C.

Tel. BArlay 7-7647

SAN FRANCISCO

By TAD FULLAWAY

PARTIES . . . VISITORS . . . NEW HOURS . . . MORE VACATIONS . . . all seem to be the chief topics of conversation around the San Francisco studios. San Francisco ATE held their first "LADIES' NITE," July 12 at the Bal Tabarin, local nite spot. The dinner dance, which was attended by about thirty engineers and their wives or girl friends gave the ladies a chance to get better acquainted and also gave the men a chance to get better acquainted with the wonderful dancing capabilities of Callahan of Field and Parks of KGO Transmitter. The floor show at the Bal at the time featured a troupe of Hawaiian singers and dancers. The show closed with the Hawaiian girls getting men patrons of the Bal to do the hula with them—Parks and Callahan surely swing a mean hip . . . to the amusement of all hands . . . The more recent party that had all of NBC San Francisco agog was their first Athletic Association outing held August 10 at the Beresford Country Club. The club property was taken over in its entirety for the day so that those athletically minded persons could do anything from golf, swim, ride, play ping pong to pitch horseshoes and play badminton. For the less strenuous minded there was checkers, chess, and bridge—not forgetting that bit of elbow bending that was enjoyed by every one. Brooke, of Hollywood engineering, came out with low gross and net in golf . . . Sugg captained a soft ball team . . . engineers cleaned announcers at softball to settle a long standing feud . . . Taking a cue from NBC Chicago the rule that only NBC people could attend—giving husbands and wives a chance to get away from each other—was forced until the last day . . . then it went by the board . . . but everyone came home well satisfied that it had been a glorious day. The day was declared an office holiday . . . so those of us unlucky enough to have to keep the studios going could console ourselves with the thought that we would get an extra day off—in the future.

Sugg, Greaves, and Andresen back from vacations spent in various spots in California. Andresen, as usual, headed south in search of sun and hot bands. While in Hollywood he teamed up with Brooke in hiring a boat for a week of deep sea fishing. Undoubtedly Brooke will cover the story fully in his Hollywood column but from talks with Brooke it seems that they had a good time, spent many hours in swimming for their drifting dinghy and diving under to clear their fouled anchor line which insisted in trying to hog tie the propellor. As to fish . . . I'll leave that to Bob for telling but it seems that the largest ones got away. Brooke also reports the metamorphosis of the erstwhile woman-shy Andresen—it seems that there were many beautiful women . . . but then I'll leave that to Bob also . . . Sugg back well browned from his vacation at Lake Tahoe where he entered and won several speed boat events in the Lake Tahoe Regatta. Spent the rest of his time fishing—thirty three trout one day—and playing golf. Greaves so busy since his return that haven't had time to find out what he did.

Much comment on the newly announced starting hours for KPO and KGO. KPO goes on the air at six in the morning starting August 14 which means a five-thirty open up for some of the boys. Despite the excellent commute service in San Francisco it was never set up for the early risers. Even in parts of San Francisco street cars do not run until six A. M. Several of the boys have to leave home at four thirty to walk many

blocks to get the only street car in the neighborhood. Rothery—when asked how he was going to get in from his new home down the peninsula replied, "I guess I'll leave at midnight in my jalopy!" . . . New time has had all hands consulting trans-bay, and peninsula train and bus schedules and San Francisco street car time tables.

NBC San Francisco boasts much royalty on the staff. There is a KING in announcing, a BARRON in engineering, and a MARQUIS in production. Recently all three were together on Ira Blue's program—truly a royal combination. Then someone mentioned a band leader named Blue Barron—aw, heck!

VISITORS . . . the halls have been full of them. Looked as though half of Hollywood had come up for a visit . . . Brooke and Jim Brown of Hollywood engineering . . . Hicks, Bob McAndrews, Hal Gibney, Meridith Willson, Paul Catson, Carol Pierson, and Bob Stevens—all from Hollywood . . . Vin Learnerd from KFBK . . . "Carl" Carlquist and Peterson from KGW, Portland . . . and O'Brien, relief man at KPO. Undoubtedly were many others that we didn't see or can't at the present call to mind. Welcome fellows—and drop around again.

Try . . .

MASTERS Mart, Incorporated

(Replacing our old name, Wholesale Masters, Inc., so as to facilitate subdued operations in your behalf)

Volume Discounts
on all standard merchandise

NEW GREATER SHOWROOM

NEW GIANT 1940 CATALOG

NEW SWIFT SERVICE

The latest, largest, most complete array of 1940 merchandise will soon be ready . . . Profusely illustrated . . . Detailed specifications . . . Page after page of bargains . . . The supply is limited, so be sure to mail the coupon for your copy, today

Gentlemen: Send me your 1940 Catalog.

NAME _____

ADDRESS _____

CITY _____

STATE _____

MASTERS
Mart, Incorporated

3rd Floor 48 W. 48th St.
Br. 9-7725

KFI - KECA

By H. M. McDONALD

\$10 TO HEAR KAY KYSER: That's what the judge assessed Jimmy McKibben when he appeared to answer a charge of driving 42 in a 25 mile zone. Jimmy, one of our sound effects men, was driving home one evening and had Kyser's Kollege going full blast on his auto radio, in fact so full that he did not hear the cop's siren. Cop was peeved not a little thinking Jimmy was ignoring him. When he caught up he said some very mean things to Jimmy about having a wife and two kids and not wanting to get killed chasing jitterbugs through traffic. Jimmy was sorry but not sorry enough and got a ticket. But Jimmy made still another mistake. He wore his Sunday best down to court, so that the judge would not think he was an every-day-run-of-the-mill violator and that found others charged with many and more serious violations, got off with lesser fines, because they were down at the heels. Moral: Drive slowly and enjoy Kay Kyser to the fullest, or wear old duds to traffic court.

CHESS: When Bryan Cole suggested games by mail between NBC men in all cities, well frankly we thought he was "cracked." To humor him we included his challenge in an item in the August issue, a single line at the tailend. It immediately drew fire from Chicago and a five game match between five man teams of NBC Chicago and KFI-KECA men was arranged. So far only four moves have been made but if interest in this No. 1 recreation here continues to increase as fast as it has during the past ten days a lot of fans as well as players will be utsnay soon. A log of the moves is kept posted in Master Control. The two die-hard holdouts, Supervisors Seamans and McDonald, inspect it regularly "along with other logs" and it's rumored they too will be playing soon.

UP ONE SIDE AND OWN THE OTHER: Party describes Floyd (Pop) Everett's vacation up the coast to the Oregon line and across to the Nevada line and down that side of the State to home. Of course he stopped at the Exposition and Reno and other way points. Reports fishing poor in the Mammoth Lakes region. Tells of visiting some fish hatchery where the fish were so voracious that they threw themselves out of the water after food and Everett left fearing fish would get out of the tanks and he would be accused by attendants of taking them out. When Jones and others received the story with guffaws and razz Pop couldn't take it and was vexed no end.

ANGUSHED ANGLER: After being tipped off last fall to "a secret lake way up in the High Sierras; only two or three people ever have been there; th limit in an hour;" Lyman Packard stamped around all winter waiting for the snow to melt up there so that he could "get at 'em." Came the day and after a four hour climb from the nearest road he, with his sister from the East whom he had promised some real fishing, reached Fish Gut Lake, only to find fourteen other fishermen there and no fish. Seems the tip was good when given but had been passed to too many and the lake had been fished out already.

Before leaving the Sierras he and his sister climbed to the top of Mt. Whitney, 14,496 feet, the highest point in the U. S., 15 miles up and 15 miles back down.

SAILS LAKE MICHIGAN AGAIN: Back to the old home town, Marinette, Wis., on that Green Bay arm of Lake Michigan, motored Carl Sturdy for his vacation and had the time of his life sailing his brother's 22 foot sailboat around that end of the Lake. Carl started his radio career as an operator in a shore station on the lake keeping track of car ferries for the Pere Marquette.

IN BAJA CALIFORNIA: After spending a good part of his vacation putting the finishing touches on his new home in Temple City and moving into it, Charley Bruere Chevied down across the border to Ensenada for a few days rest. While there he went fishing on "The Dutchman's" boat and won the jackpot with a 17 lb. 36 inch yellowtail tuna. He also caught a couple of ling cod, and because of their ugly catfish-like heads and greenish hue inside and out was about to throw them away when he learned from excited natives that they are a great delicacy. Charley fried a piece and they proved right, the meat turns white in hot grease and comes out firm and tasty.

He reports cafes in Ensenada are quiet, due to labor troubles. Mechanical music devices barred (just imagine, no Beer Barrel Polka every second number), only Union musicians permitted so cafes dispensed with music. The beautiful casino-hotel Playa Ensenada, in which Jack Dempsey was formerly interested, is closed. New customs regulations said to be driving out of business many border merchants who depend primarily on tourist trade.

Charley tried a little touring off the highway, on a side road and promptly bogged down hub deep; spent two and a half hours getting out of the hole.

TORTURE CHAMBER: "Once was enough" said George Tokar after his latest adventure in new modes of transportation, this time a round trip to San Francisco in a sleeper bus. The vehicle proved to be one that was used in the middle West during the Exposition at Chicago about six years ago, almost springless, hot, crowded, sailors and women not too particular about staying in their respective sections, the berth far too short for George's feet, two inches. Streamline trains far superior in every way, he says.

After visiting the Exposition, G. E.'s shortwave station W6XBE and NBC Studios, all of which he thoroughly enjoyed, he journeyed down to the other end of the State to San Diego and visited the Navy's high powered long wave station NPL. Contrary to general supposition the long waves are still very much in use, more than a dozen such transmitters, one a 100 KW, are being operated at NPL, in addition to a couple of ultra modern ones on short waves.

He dashed home to build a new ham transmitter which will embody some of the ideas he picked up in his travels, modestly described as "just an exciter, 40-50 watts, pre-tuned, just flip a switch for 40, 20, or 10 meters, two crystals, provision for ECO, built so can be used as a portable if desired."

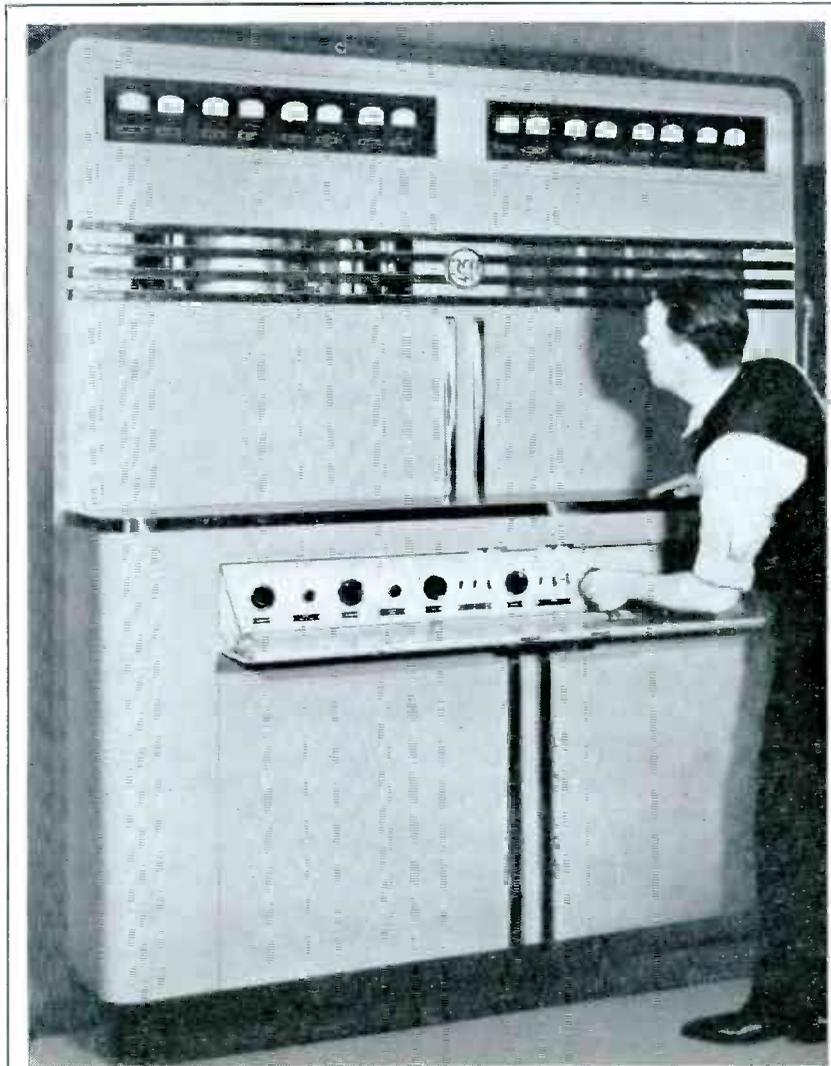
LEARN TO SWIM: With the hundreds of thousands at the beaches these warm days and all the trick things, such as inflated pillow-slips and sheets or inner tubes, which non-swimmers use to float around on, it is miraculous that more are not drowned. One of these imprudent individuals has Carl Sturdy to thank for saving his life at Santa Monica yesterday. He was using one of those flimsy things to support himself when he was carried out far beyond his depth in the surf. Though there were others close by Carl was the only one who heard his repeated cries for help and swam out and dragged him back to shore. Could easily have been two more drownings, he and Carl.

GOT OFF EASY: An FCC bulletin states that the radio operator license with Class "A" privileges held by a ham in Bradford, Pa., has been suspended for three months because he engaged in portable operation of his amateur station in violation of Rule 152.12 (notice to the RI of intention to operate a portable station); failed to keep a complete and accurate station log; operated his station in such manner as to cause interference to radio broadcast reception, and willfully and knowingly permitted the operation of station W8KFE by an unlicensed radio operator.

RCA Builds Equipment Today for Tomorrow's Television and Facsimile

TODAY RCA offers experimental Television and Facsimile Transmission Systems to forward-looking broadcasters who are making plans for service in these new fields.

Designed and built to fulfill the exacting requirements of these new arts, this RCA equipment makes available the brilliant research triumphs of RCA Laboratories. In building advanced equipment such as this RCA is helping pioneer a greater radio service for tomorrow. And, in this way, RCA makes available to all the benefits of the experience of the only organization that makes and does everything in radio and sound.



Latest RCA Television Transmitter! 1 KW Transmitter developed as a compact unit for experimental use.

Newest RCA Facsimile Equipment! Scanning unit offers a real service, for experimental stations in this field.



Broadcast Equipment

RCA Manufacturing Co., Inc., Camden, N. J. • A Service of the Radio Corporation of America

NEW YORK, 1270 Sixth Avenue
DALLAS, Santa Fe Building

CHICAGO, 589 E. Illinois Street
SAN FRANCISCO, 170 Ninth Street

ATLANTA, 530 Citizens & Southern Bank Building
HOLLYWOOD, 1016 N. Sycamore Avenue



"PROFILES"

A hard picture to get—but Agfa Film got it!

IT'S HARD to shoot sunlit figures against an open sky and get good results—but see how beautifully Agfa Film does it!

Notice the pleasing tonal gradation... from sparkling white to velvety black, and the middle tones in between.

Agfa Plenachrome Film's "extra margin of quality" helps you get best results under ordinary conditions and *surprisingly good* results even under unfavorable

conditions. Its high speed, fine grain, wide latitude, color sensitivity, and accurate response to light values make it a film you can *always* depend on!

Get a roll of Agfa Plenachrome Film today...and start getting better pictures! Remember... every roll of Agfa Film is guaranteed: "Pictures that Satisfy or a New Roll Free." *Made by Agfa Ansco Corporation in Binghamton, N. Y., U. S. A.*

Agfa Film



"Pictures that satisfy
or a new roll free!"