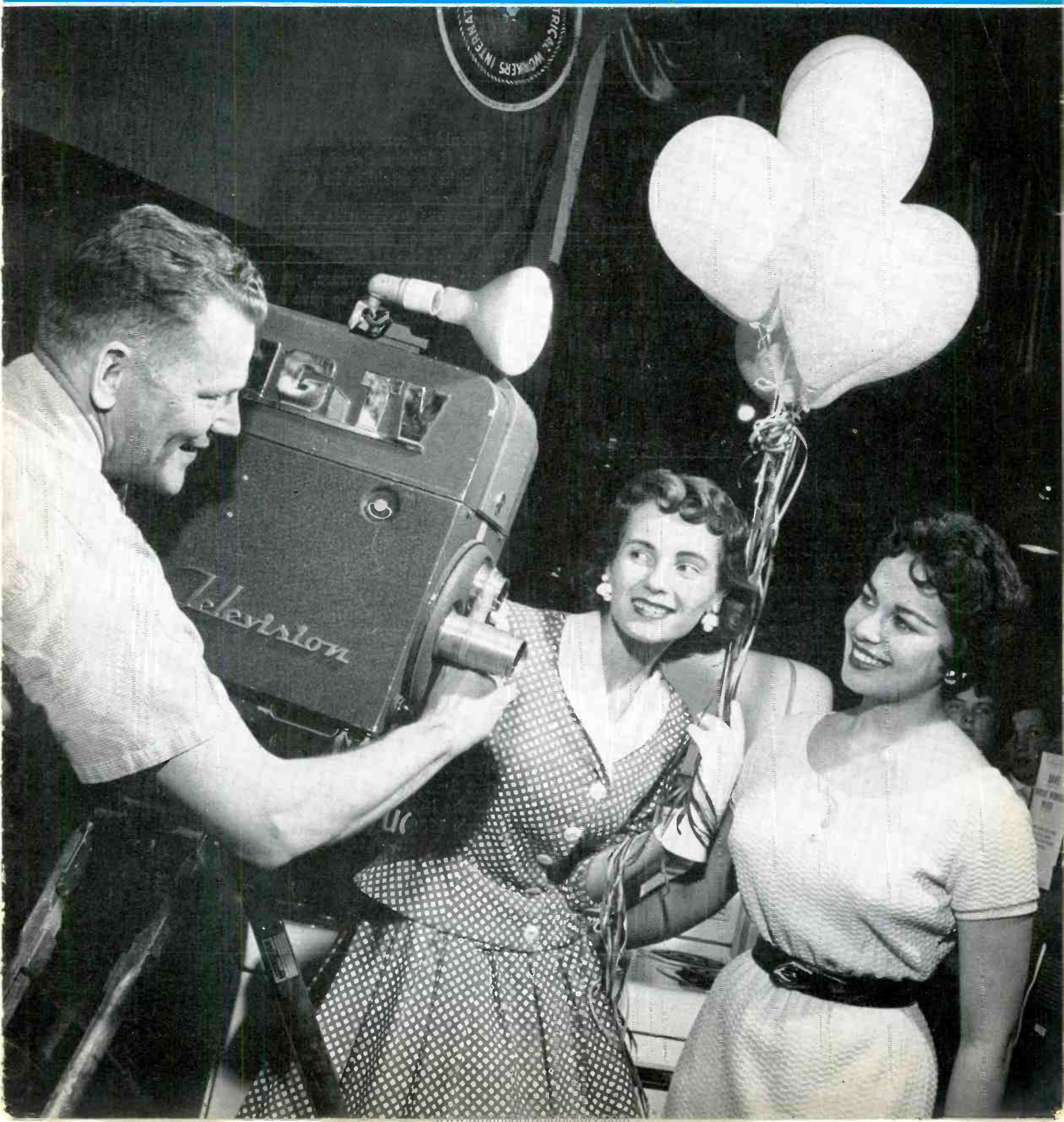


RADIO, TV and RECORDING



MAY, 1956

# TECHNICIAN-ENGINEER





RADIO, TV and RECORDING  
**TECHNICIAN-ENGINEER**

VOLUME 5 17  17 NUMBER 5

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The INTERNATIONAL BROTHERHOOD of ELECTRICAL WORKERS

GORDON M. FREEMAN International President  
JOSEPH D. KEENAN International Secretary  
FRED B. IRWIN International Treasurer

ALBERT O. HARDY

Editor, Technician-Engineer

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**... the cover**

IBEW members on the staff of KING-TV, Seattle, Wash., had a busy time during the 1956, AFL-CIO Union Industries Show, April 20-25. (See story on page 6.) But all was not drudgery. Here Cameraman Paul Sawin prepares to focus on a duet of Seattle show visitors—Misses Dolores McInnes and Caroline Van Loock. The young ladies were contestants in a local Miss Air Power contest, sponsored by the Aviation Club of Seattle. The balloons were props in the IBEW show booth.

Sawin is a member of Local 77. He started in audio eight years ago when the station had the call letters KRSC-TV, but has since moved to camera and camera control.

**commentary**

Should a company be required, in a National Labor Relations Board wage dispute, to open up its books to establish its point that it cannot grant an increase?

This was the question before the Supreme Court in the case of the Truitt Manufacturing Co., structural steel firm of Greensboro, N. C. The company resisted a wage increase, yet it also opposed the NLRB by refusing "to give information about its financial status."

The Supreme Court decided the question sensibly. Six Justices, speaking through Justice Black, took the position that in determining whether "good faith bargaining" had been met, the NLRB in certain instances could properly consider a company's refusal to give out financial information.

But the majority also foresaw that this might easily be abused. And so the six Justices said that "each case must turn on its particular facts"—that such opening up of financial records ought not be "automatic."

This decision is sensible because it protects both employer and employee. It protects the employees from an employer who would hide the truth. And it protects the employer from employees who would make a fishing-expedition practice of stirring into a company's records.—*From an editorial in the St. Louis Post-Dispatch.*

**the index . . .**

For the benefit of local unions needing such information in negotiations and planning, here are the latest figures for the cost-of-living index, compared with the 1954 figures:

March, 1956—114.7

March, 1955—114.3

*On February 15, the National Association of Radio  
and Television Broadcasters Asked the FCC  
for further relaxation of remote control rules . . .*

## IBEW Petitions for Delay

Official spokesmen for management in the broadcasting industry have been trying desperately—and with some success—to extend the realm of automation in the nation's studios and transmitters. In their zeal to make the machines do all the work they have asked for a further relaxation of the rules and regulations of the Federal Communications Commission remote control limits. In our March and April issues we told what the National Association of Radio and Television Broadcasters had requested. Below is the petition for delay which was filed with the FCC on May 10. (See Page 5 for the Commission's reply.)

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington 25, D. C.

In the Matter of

Amendment of Sections 3.66,  
3.274, and 3.572 of the Commis-  
sion's Rules and Regulations re-  
lating to remote control opera-  
tion of certain standard, FM and  
non-commercial educational FM  
broadcast stations.

Docket No. 11677

### MOTION OF INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS (AFL-CIO)

The International Brotherhood of Electrical Workers respectfully moves the Commission, for the reasons set forth below, for an extension of time within which to file with the Commission written data, views or arguments setting forth its comments with respect to the Proposal for Rule Making in the above entitled matter.

The Notice of Proposed Rule Making in the above entitled matter was adopted by the Commission, April 11, 1956, and released April 12, 1956.

Paragraph 12 of the Commission's Notice provides that interested persons who are of the view that the Proposal (1) should not be adopted, (2) should not be adopted in the form set forth in the Notice, or (3) should be adopted, may file with the Commission on or before June 1, 1956, written data, views or arguments setting forth their comments with respect to the proposed rule making.

As applied to the International Brotherhood of Electrical Workers, the June 1, 1956 date would be unfair and impractical in that it clearly would not allow sufficient time for the presentation of considered views prepared with the degree of care and accuracy that the Commission is entitled to have before it in its consideration of the proposed rule making in this matter.

After the filing of the petition by the National Association of Radio and Television Broadcasters, which formed the basis for the Commission's Notice of Proposed Rule Making, but before the issuance of said notice, the International Brotherhood of Electrical Workers communicated with the Commission by letter dated March 20, 1956, setting forth a series of 15 questions, the answers to which were necessary to determine the position that the Brotherhood should take with respect to the petition of the National Association of Radio and Television Broadcasters. Again, on April 19, 1956, the International Brotherhood of Electrical Workers, having received no acknowledgment of or reply to its communication dated March 20, 1956, again called the attention of the Commission to its request for information. Thereafter, on May 3, 1956, the International Brotherhood of Electrical Workers received a communication from the secretary of the Commission bearing the date of April 26, 1956, and purporting to furnish information in reply to the Brotherhood's communication dated March 20, 1956. It will thus be seen that the Brotherhood has acted promptly and with all reasonable diligence to secure the information which is necessary for the presentation of its views and the consideration of this matter by the Commission.

**MAY, 1956**

**3**

For reasons hereinafter set forth, it will be readily apparent to the Commission that the communication received by the Brotherhood on May 3, 1956, is not adequate to enable it to determine the position it should take with respect to the proposed rule making. It will also be readily apparent to the Commission that, in order to prepare an informed opinion as to the position it should take in this matter and to present views and arguments in support of such position, it would be necessary that the time for submission of such views be, insofar as the International Brotherhood of Electrical Workers is concerned, extended to a date not later than 30 days from the date on which it receives a reply to the questions propounded in its communication dated March 20, 1956.

From an examination of the 15 questions propounded in the letter of March 20, 1956, it will be readily apparent to the Commission that the information sought to be elicited would be highly material in connection with the proposed rule making. The information would not only be vitally necessary for the Brotherhood in order to determine its position and present views in support thereof but should, it is submitted, be sought by the Commission itself to enable the Commission to make an objective evaluation from the viewpoint of the public interest and the purposes and policies of the applicable legislation of the proposal for rule making. It is apparent from the face of the two documents—the Brotherhood's request for information dated March 20, 1956, together with the letter of April 19, 1956, attached hereto as Exhibits A and A1, and the reply of the Commission's secretary dated April 26, 1956 (received May 3, 1956), attached hereto as Exhibit B—that the reply furnishes only a minimal portion of the information sought.

Questions Nos. 1, 4, 7, 10, 11, 12, 13, 14, and 15 were not answered. With respect to Questions Nos. 2, 5 and 8, the information furnished by the Secretary of the Commission was not broken down by fiscal years and could not, therefore, be properly evaluated for purposes of the present proposed rule making.

With respect to Question Nos. 3, 6 and 9, there is,

similarly, a failure to furnish a breakdown by fiscal years. Questions Nos. 3, 6 and 9 clearly asked for information with respect to each of the fiscal years 1953, 1954 and 1955. The information submitted by the secretary of the Commission does not indicate whether the answer supplied relates to one month, one year, or the total for the three years.

With respect to Question No. 10, as to which no answer was given, it is believed that with respect to stations operating in the Conelrad Service, the information should be available at the Commission. The same is true with respect to Question No. 11. With respect to Question No. 15, it is believed that records available within the Commission should show material asked for in this question.

Finally, the information furnished to the International Brotherhood of Electrical Workers relates only to AM stations, whereas the information sought as well as the proposed rule making embraces also FM stations.

As stated above, the materiality of the information sought to be elicited by our letter of March 20, 1956, is self-evident. The delay in furnishing any information in reply to that communication coupled with the patent inadequacy of the information finally furnished is, it is submitted, ample reason to justify granting the request for the extension of time herein requested.

For the foregoing reasons, it is respectfully requested that with respect to the International Brotherhood of Electrical Workers, the time for submitting written data, views or arguments in connection with the proposed rule making herein be extended to a date thirty (30) days from the date on which the information requested in the Brotherhood's letter of March 20, 1956, is furnished, or to such other date as the Commission deems just and proper in the premises.

Respectfully submitted,

LOUIS SHERMAN,  
1200 Fifteenth Street, N. W.  
Washington 5, D. C.  
Attorney for  
International Brotherhood of  
Electrical Workers

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## Lockout At KOA, KOA-TV, Denver, is Ended

Members of NABET returned to work at KOA, KOA-TV, Denver, on Sunday morning, April 22.

A new agreement was signed on April 19 and a meeting was held on the following evening for the purpose of setting up schedules and assignments for the returning workers. So ended the 18th week of the lockout.

The new agreement is reported to provide for materially increased wages for other-than-engineering personnel and the four-year escalator for engineering employees contains substantial increases in its lower brackets. A rather unusual,

but not completely novel, arrangement for compensation of displaced personnel is included in the agreement. It provides that displacement due to technological changes or changed modes of operation shall be compensated for by one year's notice of layoff together with three months' severance pay should the to-be-displaced employee desire to leave during the year.

Local 52, NABET, has expressed its thanks for the faith of organized labor and the support given to its members and its organization during its long, drawn-out battle for its principles.

On May 17 the FCC granted an extension of time for filing comments on the NARTB petition, after it was requested to do so by our International Union. The notice of extension appears below:

FEDERAL COMMUNICATIONS COMMISSION  
Washington 25, D. C.

32073

In the Matter of )  
 )  
Amendment of Sections 3.66, )  
3.274 and 3.572 of the )  
Commission's Rules and Regula- )  
tions relating to remote )  
control operation of certain )  
standard, FM, and non-commercial )  
educational FM broadcast )  
stations. )

Docket No. 11677

NOTICE OF EXTENSION OF TIME FOR FILING COMMENTS

1. On April 12, 1956, the Commission issued a Notice of Proposed Rule Making (FCC 56-323) in the above-entitled proceeding which specified that comments should be filed on or before June 1, 1956, with replies to comments due 20 days thereafter.
2. On May 10, 1956 the International Brotherhood of Electrical Workers (AFL-CIO) filed a request for extension of time in which to file comments, as the June 1, 1956 date would be unfair and impractical in that it would not allow it sufficient time for the presentation of considered views prepared with the degree of care and accuracy that the Commission is entitled to have before it in its consideration of the proposed Rule Making in the matter.
3. The Commission believes that a sufficient showing has been made to warrant an extension of time for filing comments in this proceeding and that such an extension would be in the public interest.
4. In view of the foregoing, IT IS ORDERED, That the time for filing comments in the above-entitled proceeding IS EXTENDED to July 2, 1956; and that the time for filing replies to such comments IS EXTENDED to 20 days thereafter.

FEDERAL COMMUNICATIONS COMMISSION

/s/  
Mary Jane Morris  
Secretary

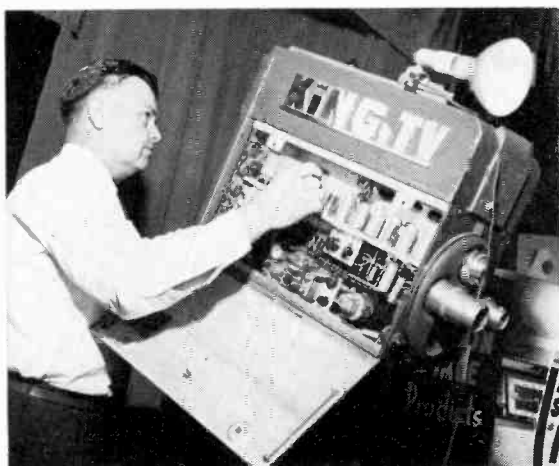
Adopted: May 17, 1956

Released: May 17, 1956



A view of the main floor of Seattle's Civic Auditorium, looking down the crowded center aisles.

## Local 77 Technicians at the UNION INDUSTRIES SHOW



Earl H. Thoms of KING-TV makes emergency repairs on the booth camera right on the spot.

*Seattleites get their first  
glimpse of live  
television in operation  
at the International  
Brotherhood of Electrical  
Workers' show booth*



A. K. Jordan of Local 77 pans show crowds as on page 7. Show booth receivers are shown to left of picture.

**E**ACH spring, the AFL-CIO Union Label Trades and Services Department sponsors a big extravaganza known as the Union Industries Show. As people who have visited one of these labor-management exhibitions will tell you, the Union Industries Show out-shines all similar events by far. There are *more* giveaways, *more* demonstrations, *more* types of entertainment than any hobby show, flower show, home show, or whathaveyou.

The purpose of the annual show is to acquaint the general public in our major cities with the value of products and services produced by union labor under union working conditions. The crowds who fill the big auditoriums each spring testify to the fact that the show accomplishes its purpose.

On April 20-25, the 1956 Union Industries Show was held in Seattle, Wash. As in the past years, your International Brotherhood of Elec-

**Technician-Engineer**



trical Workers had an exhibit to acquaint the public with our work. Our display was five standard show booths in floor space. We displayed union-made appliances—stoves, refrigerators, washing machines, dryers, television sets, etc.—which were given away, one per night, to lucky ticket holders.

In one corner of the IBEW exhibit, Andrew Scott of Local 46 demonstrated the fine art of neon tube bending to a fascinated cluster of spectators. Close by, Merl L. Bassett, safety officer of the Bonneville Power Administration, displayed and described to show visitors the world's smallest electric motor—a unit which could only be seen in detail under a magnifying glass.

Dale Rancourt of Local 77 demonstrated cable splicing, using a maze of wiring.

Throughout the display our union label was prominently displayed.

A hit of the exhibit was a daily demonstration of live television, conducted by members of Local 77 employed on the engineering staff of KING-TV, a Seattle station. Working under the direction of Ben Swisser of Master Control, the entire technical crew of the station participated in some phase of the show operation during its six-day run. The pictures on these pages show how much the public—especially the kids—enjoyed seeing themselves on television.

Four receivers, including one of the new RCA miniature portables, were set up so that show visi-

The magic of live television thrilled the youngsters who saw themselves on four receivers installed in the IBEW booth. In the third picture from top, International Secretary Keenan and AFL-CIO Secretary-Treasurer William Schnitzler smile at the double image of twins on the screen. BELOW: Union musicians "whooping it up" at the opening ceremonies.





The International Brotherhood booth was a big attraction of the 1956 show. Cameraman at right, center.



International President Gordon Freeman and International Secretary Joseph Keenan hand out tickets.

tors could see themselves on the screen. A KING-TV camera panned on the crowd which gathered around the IBEW exhibit from the time the show opened at 1 p. m. until it closed each night about 11 p. m.

It was a monotonous chore at times, for men who usually follow a script, but the KING-TV members did their job well, drawing the praise of International President Gordon Freeman and International Secretary Joseph Keenan, who were in Seattle to visit district locals and inspect the show.

The Seattle exhibition was held in the city's Civic Auditorium and Ice Arena. There were more than 400 individual booths sponsored by national and international unions and union-contract manufacturers and service organizations. Exhibits were valued at more than \$26 million.

The show was launched with appropriate ceremonies outside the Ice Arena on April 20. An estimated 2,500 northwest unionists and their families were on hand to hear labor and civic leaders in brief addresses. AFL-CIO Secretary-Treasurer William Schnitzler pulled a switch which set off a display of aerial fireworks, and the entrance doors were opened to the public. Admittance was free, as was everything distributed at the show—with the exception of food and drink from three concessions.

Several booths at the show featured the work of skilled and apprentice unionists. The Bricklayers held their annual contest to find the bricklayer apprentice champion of the nation. The Carpenters inaugurated with the Seattle show a statewide apprenticeship contest to find a champion carpenter and a champion millman.

Show visitors witnessed such displays as a glass bottle blowing unit, a complete laundry in operation, a show post office, a print shop and bindery, a meat market, and an egg candling and crating machine.

Strolling musicians serenaded the crowd, and candy, cereal, cookies, and soft drinks were dispensed to onlookers. Balloons bearing the IBEW label were given away to the children who visited the IBEW exhibit.

The Seattle show was so popular that the doors to the exhibition hall had to be closed temporarily during the Sunday showing. On other occasions people stood in line to get in.

With all its gala hoopla, the show has its most serious side which the Union Label and Service Trades Department of the AFL-CIO constantly stresses.

It helps to encourage better relations with fair employers and goes a long way to build more widespread understanding and good will for organized labor.

This is done by exhibiting before the great American consumer market union-made articles of outstanding quality, many of which are produced right on the floor of the exhibition by expert union members.

Anyway you look at it, though, the Union-Industries Show is quite an affair.

It was the eleventh such exhibition presented. Others have been held in Cincinnati, St. Louis, Milwaukee, Cleveland, Philadelphia, Chicago, Boston, Minneapolis, Los Angeles and Buffalo.

An estimated 530,000 visitors saw the exhibition during its six-day run. It was an attendance record-breaker for the Seattle Civic Auditorium.

Next year's show is scheduled for Kansas City, Mo., in May. Already international unions are reserving space for the 1957 event.





## WEST COAST PROJECTION ROOM

A television studio manned by IBEW technicians and operated under an excellent relationship with management is that of KING-TV, Seattle, Wash. Engineers at the station are members of IBEW Local 77, and shop steward is Ben Swisser of master control.

The picture above is of the KING projection room. The IBEW member at work is Phil Davis. The station's projection room houses a Vidicon camera for film projection and two Eastman 250 projectors. There is an iconoscope for slides, a GE color camera and a continuous-motion Eastman projector.

There is a film cleaning unit attached to the studio

projectors of which the station is justly proud. Developed by the station staff, it has since been used by other stations, particularly for cleaning film in splicing and editing rooms.

Specially - designed pads mounted about 15 to 18 inches from the film gate are kept wet with a special solution, which has the characteristics of carbon tetrachloride and includes melted wax. Film passing through these pads is cleansed as it approaches the gate for projection.

As can be seen from the photo, the room is well arranged and spacious. It was set up three years ago.

## ELECTION TIME IN MINNEAPOLIS



**T**HE Columbia Broadcasting System has in operation this political year a special 12-man roving television and radio reporting team called the "CBS News Campaign Cavalcade." Originating from CBS outlets where the news is happening, the unit is feeding special reports to the network with the help of regular IBEW engineering crews in the host cities.

The Cavalcade is covering the major state primary elections. It will follow the dark horses and the front runners and generally pursue a fast-breaking 1956 political story.

An early "shakedown" of the 12-man unit was held in the twin cities of Minneapolis and St. Paul, where members of IBEW Local 292 employed by WCCO-TV handled all feeds to the net. The occasion was the Minnesota primary election, held March 20. (The pictures on this page and the two following show some of 292's members on the job.)

CCO is proud of its work during the primary . . . and justly so. Among other activities the station's news staff conducted a "post card primary," urging listeners to drop a post card listing their favorite candidates. The result of this sampling showed Estes Kefauver a favorite by 54 per cent of the postcards, compared to 46 per cent of the cards listing Adlai Stevenson. When the smoke cleared the morning after the election, Estes scored just less than 56 per cent of the Democratic votes. The CCO poll had proved accurate to an uncanny degree.

The Twin Cities shakedown went well under the network-CCO combination. It was encouraging to CBS officials who had been skeptical.

"Frankly, this is an expensive, highly complicated venture, and is in addition to our plans for

*CBS tries out an election  
year "Campaign Cavalcade"  
idea in the Minnesota  
primary, using IBEW men.*

**TITLE PICTURE:** Will Hartman pans on the front page of the Minneapolis Star from an editor's desk. This was a sidelight shot for a network newscast.



Robert Knobel of WCCO-TV at the audio controls set up in the local newspaper office for the telecasts.

comprehensive coverage of the National Conventions," John Day, director of CBS news, said. "But we're convinced that 1956 is going to be the most exciting and unpredictable political year in American history."

Two CBS news correspondents will accompany the news-gathering unit at all times. On a rotating basis, the "Cavalcade" expects to employ the services of such veteran CBS newsmen as Eric Sevareid, chief Washington correspondent; Griffing Bancroft, Ned Calmer, Wells Church, Lou Cioffi, Ron Cochran, Charles Collingwood, Walter Cronkite, Douglas Edwards, George Herman, Allan Jackson, Larry LeSuer, Bill Shadel, Neil Strawser, Dallas Townsend, Robert Trout and Charles von Fremd.

The permanent members of the "Cavalcade" unit include an assignment chief, the 'straw-boss' of the outfit; a reporter; two film cameramen; a lighting technician and a film sound engineer; a radio engineer to record on-the-scene oratory and interviews; a business manager and two general assistants.

The unit's chief responsibility will be to furnish all CBS Television and CBS Radio Network news programs with a steady supply of political news. In addition, the "Cavalcade's" output will be available to the more than 60 clients of CBS Newsfilm in the United States, Canada and overseas. A majority of the stories gathered by the unit will arrive at CBS news headquarters in New York on tape and film. However, the "Campaign Cavalcade" also will do a large number of remote "live" broadcasts for both the television and radio networks, either as special news and public affairs

programs or as cut-ins on scheduled broadcasts.

"We expect the 12 men on this team to develop a good many new and unusual techniques for bringing news of the campaigns to our television and radio audiences," Mr. Day said. "We are not going to be satisfied with the traditional 'news-reel' concept of covering politics, and by this I mean sticking a camera into the candidate's face, hanging a microphone around his neck, and letting him talk and talk."

"When our unit covers a candidate," Mr. Day continued, "it not only will find out what he said, but why he said it, whether he meant it, and what the effect is on the voters."

"CBS News Campaign Cavalcade's schedule is purposely tentative. The unit will be ready at any moment to scrap its itinerary in order to cover important political developments wherever they break. However, the reporting team at present is covering the major state primaries. The 'Cavalcade' also will treat in a comprehensive manner domestic and foreign issues that may influence the outcome of the Democratic and Republican conventions and, later, the election itself."

"The 'Cavalcade's' present plans include enough proposed stories and areas that require coverage to keep it moving until the start of the Democratic National Convention in Chicago on August 13. Planes will carry the unit and its thousands of pounds of baggage, camera and radio equipment on the long hops between major cities. Most of the traveling, however, will be done in station wagons, one of which will be equipped with a specially-designed portable camera platform."



Technical Director Elmer Theisen and Program Director Roger Gardener working inside WCCO-TV mobile unit.



The Minneapolis Auditorium was a pickup point for the Doug Edward telecast. Jerry Bergstrom is on the street camera.



## Election Time, Continued

IBEW Cameraman Jerry Bergstrom picks up CBS Network Newscaster Doug Edwards at the entrance to the Minneapolis Auditorium, a 6th Ward polling place. Another WCCO-TV technician tends the mike line.



Will Hartman and Jerry Bergstrom setting up cameras for Doug Edwards newscast in the editorial sanctum of the Minneapolis Star and Tribune. The station's mobile unit was parked in front of the building.



Edwards thanks his technical director, Elmer Theisen, and the audio supervisor, Robert Knobel, for a job well done. Note the voting booths in the background.





under such psychologically hazardous titles as knee-pants operator, bag holder, bottom man, plodderman, moocher, leacher, bumper, knocker, neck cutter, on-and-off man, dieing-out machine operator, first faller and former man. Happily, on the uplifting side, there's a backer-up, bucker-up and build-up man.

Many job titles can mislead the innocent. The flapper, for example, is a male copper worker; the gandydancer lays and repairs railroad tracks. The boarder shapes and removes wrinkles from nylon stockings, while the tipper dresses poultry. The keep-off girl, as like as not a friendly lass, searches insurance reports for suspicious losses. The chamberman, not a male chambermaid, makes sulfuric acid. The pretzel peeler loads raw pretzels on a conveyor belt.

# U.S. Jobs Run Gamut, A to Z

*Ever hear of a keep-off girl? a pretzel peeler? a leg inspector? A Labor Department dictionary lists them.*

**W**ASHINGTON—If it is true that “men must work, and women must weep,” they at least may find a smile in the names and natures of some gainful occupations.

Listen to the lilt of the bushing-and-bung-boring-machine operator. And consider the image of the wrinkle-chaser in a boot and shoe factory, the joy loader in a coal mine, the pulpit man in a steel mill, or the stiff-leg derrick operator on a construction job.

These are but a few of the 60,000 names affixed to the 24,000 different jobs defined in the United States Department of Labor's Dictionary of Occupational Titles. The two-volume compendium, says the National Geographic Society, now lists the livelihoods of 80 per cent of America's job holders—from arch-support assembler to zangero (supervisor of irrigation ditches).

It recognizes many a laborer whose services might otherwise be taken for granted: the cracker stacker, doll-eye setter, baseball glove stuffer, back-pocket attacher, bologna lacer, fan-mail clerk, and the ribbon-tier who makes red bows on Valentines.

It also inspires sympathy for those who work

A donkey doctor repairs donkey engines for the logging industry. A banking inspector peers at parts of watches. And a leg inspector eyes empty hose in a stocking factory.

The “sage” engineer, not necessarily wise, is a victim of the alphabet age. Actually a semi-automatic-ground-equipment specialist, he holds one of many jobs—such as the experimental-rocket-sled mechanic and the electric-eye-sorting-machine technician—created in the last 10 years.

Other new jobs listed in the latest dictionary supplement reflect graphically the mood and manner of the times. To name a few; the automobile-self-serve-service-station attendant who runs a gasateria, the launderette attendant, the cigarette-lighter repairman, the security officer, and the electrocardiograph technician.

Jobs not yet listed but knocking at the dictionary's door include the “listen-to-er” who lends her ear to people's troubles at \$3 an hour, the stick-man whose only function is to scare off anyone who might touch a welder working on the third subway rail, a hat ager who rumples hats for a Hollywood studio, and a “lost-kid finder” who rounds up stray children at fairs.

# READING TIME

**Electronic Engineering**, by Samuel Seely. 525 pages. \$8. McGraw-Hill Electrical and Electronic Engineering Series.

Samuel Seely is professor and chairman, Department of Electrical Engineering, Syracuse University.

This book provides a detailed discussion of a large variety of electronic circuits which are important in such diverse fields as radar, television, electronic control and instrumentation, and computers. Most of the radio field is excluded.

Beginning with a general introduction to tubes and tube circuit principles, the author then proceeds into a detailed consideration of the more important electron tube circuits. Emphasis is placed on the physical and mathematical analyses.

With the help of this book, the reader will develop a solid understanding of the techniques of analysis, the special features of the many circuits examined, and the means for combining circuits of different types in order to achieve operational results.

Because one of the purposes of the book is to train the reader in techniques of analysis, occasional alternate methods of analysis are included of a given circuit, and varied analytical methods are employed in developing the material.

Thoroughly up to date, the book includes a chapter on solid state theory, and one on transistors as circuit elements, as well as most of the current electronic engineering problems.

In all analyses, considerable care has been taken to include the requisite reference conditions for potential polarities, current directions, and transformer-winding sense.

With a Ph.D. from Columbia University, Dr. Seely has taught at the College of the City of New York, at the U. S. Naval Postgraduate School, and since 1947 at Syracuse University. From 1941-46 he conducted research on radar, electronics, and antenna theory at the Radiation Laboratory of the Massachusetts Institute of Technology.

**Key Check Points in TV Receivers.** 182 pages, 5½ x 8½, Catalog No. KCP-1, Howard W. Sams & Co., Inc., 2201 East 46th Street, Indianapolis 5, Ind. List price, \$2.

Here is a book which enables the service technician to save time in making tests on the operation of TV receivers. Presented in this book are voltage measurements that should be present at

strategic points in a normally operating receiver. Also shown are actual photographs of waveforms which are present at key points in the receiver. Alongside the waveforms are shown the peak-to-peak amplitudes. By making voltage measurements and by analyzing the waveforms at the points indicated, the technician can determine whether the overall operation of the receiver is normal.

The data presented in this book will have many applications in general TV service work, including two which will be great timesavers for the technician. They are:

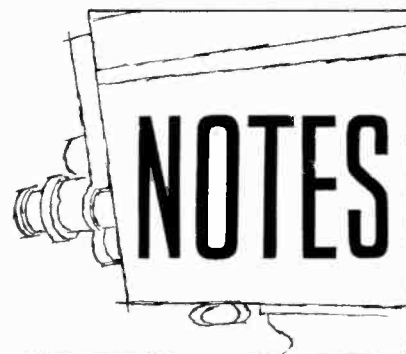
1. After a repair job is completed (which usually involves only one section of the receiver), the technician can very quickly make tests at the key points indicated and thereby determine whether the overall operation of the receiver is normal. This constitutes a sort of insurance against call-backs.

2. Upon starting any bench service jobs, the technician can very quickly make tests at the key points indicated and thus determine in which section or stage of the receiver the trouble lies. By so localizing the trouble, considerable time is saved.

An index is provided so that applicable information can be located readily. Also shown are the PHOTOFAC Set and Folder numbers to eliminate the need for further reference whenever complete service information is required. This volume covers receivers produced in late 1951 and in 1952.

**Analysis of Electric Circuits**, by William H. Middendorf, 306 pages, \$6, John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y.

The book is divided into three major sections. The first of these—Basic Circuit Analysis—covers circuit analysis, basic laws and definitions, types of voltage and current variations, notation, the algebra of complex numbers, impedance and admittance, circuit parameters, the calculation of power, application of current or voltage to a branch composed of a single parameter and parameters in series, application to parallel branches composed of parameters in series, equivalent series and parallel branches, locus diagrams, resonance phenomena, analysis of circuits containing more than one source of current or voltage, and magnetic field coupling. Part II—Extension of Basic Circuit Analysis—contains chapters on nonsinusoidal waves and network simplifications and theorems. In the final section, both polyphase and communication circuits are included.



## ***Airborne Television***

Development of an airborne television system in which "active" pictures of troop movements can be flashed to ground control points from reconnaissance jet planes was announced May 10, by Philco Corporation.

The firm said the system would enable planes flying at heights beyond the reach of anti-aircraft weapons to flash back to control points theater-sized pictures of enemy terrain.

"The scope of such a reconnaissance system is almost unlimited," the announcement said.

## ***One-Ounce Receiver***

A miniature receiving set weighing one ounce, developed by the Philco Corporation, will be introduced by the American Broadcasting Company for its radio and television coverage of the political conventions in August.

The set, named "Audipage," makes it possible for roving reporters on the convention floor, many of whom will have portable transmitters, to get instructions from the master control point without direct wire contact.

## ***Low-Light TV Tube***

RCA's new low-light television camera tube, demonstrated for the first time during the dedication of RCA's new Moorestown (N. J.) engineering plant May 4 impressed observers with its ability to pierce almost total darkness.

In the demonstration, the image of a girl in a room with the lights off—she was invisible to observers seated 15 feet away—was picked up and projected, bright and well-defined, on a television receiver in the room.

The tube, known as a wide-spaced image orthicon, was described to the Institute of Radio Engineers' convention several weeks ago. It had not been publicly demonstrated, however, before the Moorestown dedication. It is now being used experimentally by the Armed Forces.



SEMICONDUCTOR DEVICES in packing trays are checked at the Woburn, Mass., plant of Sylvania Electric Products, Inc. Sylvania's Electronics Division has announced that another plant has been purchased to expand manufacture of transistors and diodes as part of the company's multi-million-dollar semiconductor program. Located in Hillsboro, N. H., the new facility was built in 1954.

Both germanium and silicon types of diodes and transistors will be manufactured at Sylvania's new plant. Operations are expected to start on June 1.

## ***Tape Timing Guide***

A new timing chart in the form of a simplified slide rule, designed to show at a glance the time and length factors involved in tape recording, has been introduced in the Reeves Soundcraft Corporation line as an accessory item, the company announced. With it, officials said, "the tape-recordist can tell, before he starts, how much tape he will need to record for a certain period of time or how long a certain tape will last him at any recording speed." The Soundcraft Timing Chart is available at Soundcraft dealers for \$1.20.

# Station

# Breaks

## ***Labor Series on Discs***

A transcribed 13-week labor series discussing effects of the AFL-CIO merger has been prepared by the AFL-CIO broadcasting staff. It features interviews with members of Congress and labor officials. Entitled "Labor Reports to the Nation," the opening disc features George Meany, AFL-CIO president.

## ***Ampex Takes Orders***

The Ampex TV tape recorder, which we described in our lead story in the April issue of the **TECHNICIAN ENGINEER**, was the sensation of a recent management meeting in Chicago. Ampex took in approximately \$4-million in orders for the new video development during the week of the management convention. CBS-TV has ordered three prototype models for fall programming.

## ***The Lighter Touch***



On the last day of the CBS negotiations in Washington, one of the committeemen from Los Angeles made quite a joke of the tanks and military equipment on display in the patio at KNX. In kind, CBS replied that the Armed Forces display was purely coincidental and had no connection with the current negotiations.

## ***New Research Head***

James E. Noe has been named Director of Research of the International Brotherhood of Electrical Workers. A former International Representative, Noe is 41, a native of Bradfordsville, Ky., and he once attended Morehead State College and the University of Louisville. He was an Air Force pilot in World War II.

## ***Political Simulcasts***

The Republican National Committee plans to use 15 half-hour network simulcasts and 35 five-minute periods, mostly simulcasts for the 1956, election campaign, L. Richard Guylay, public relations director, has announced.

## ***To Handicap Post***

President Eisenhower recently named our International President Gordon Freeman as a vice chairman of the President's Committee on Employment of the Physically Handicapped. President Freeman will work with Major General Melvin J. Maas, chairman of the committee, to assist the various state governors' committees in carrying out the nationwide program.

In making the appointment, President Eisenhower wrote our International President as follows:

"Your distinguished background and your personal interest in work for the handicapped will enable you to make a most significant contribution to the nation's program for equality of opportunity for handicapped men and women workers. The American labor movement, together with industry and business, has rendered real assistance to these efforts in the past, and we know that your cooperation will be most helpful in the future."