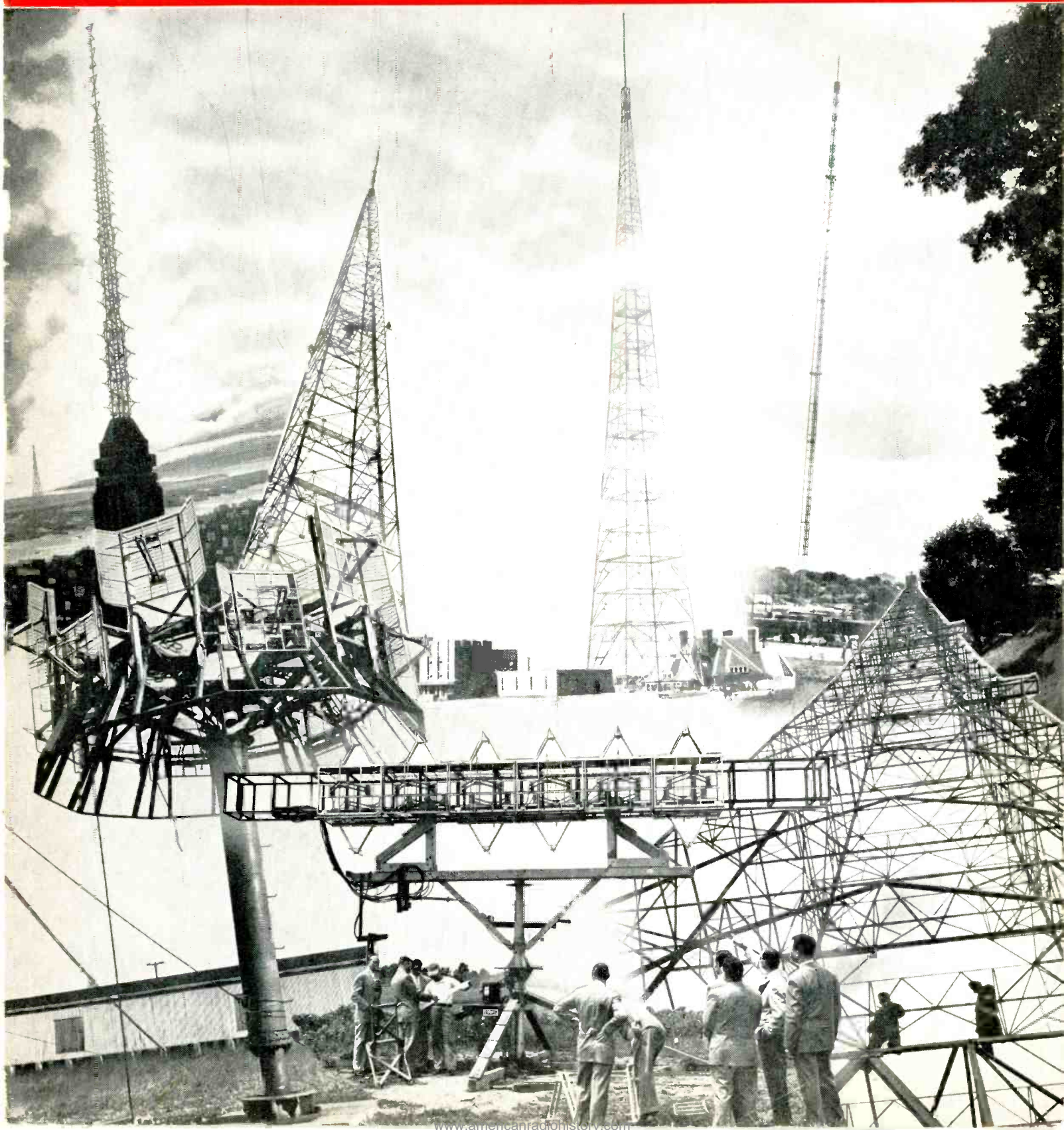


RADIO, TV and RECORDING

# TECHNICIAN-ENGINEER

SEPTEMBER, 1955





# RADIO, TV and RECORDING TECHNICIAN-ENGINEER

VOLUME 4 NUMBER 8

PRINTED ON UNION MADE PAPER

## The INTERNATIONAL BROTHERHOOD of ELECTRICAL WORKERS

GORDON M. FREEMAN International President  
JOSEPH D. KEENAN International Secretary  
W. A. HOGAN International Treasurer

ALBERT O. HARDY

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## ... the cover

The sky's the limit for TV's transmission towers. Here are a few antennae rising from various points of the nation. Reading from top left, corner, clockwise: The tower atop the Empire State Building, New York City; a 1057-foot rig belonging to WSB, Atlanta; tower for WLWT, Cincinnati, and (at lower right) WDTV, Pittsburgh, Pa. At lower left and center are two arrays for testing antenna and transmitter units before tower installation.

## commentary

LABOR DAY—1955—We have a great faith in America and, as a group, probably more faith in America than any other single group within the nation. We well remember the factors that contributed to the terrible crash in October of 1929. We remember the prosperity just preceding that crash; we remember how high consumer credit was; we remember easy credit—and rising and we say today, "We don't want another; we want prosperity but we want a sound prosperity that will be with us for the decades to come."

We must recognize that there are sore points all over the world; there are powder kegs, small ones and large ones, in Asia, in Africa, in Europe and in South America which day by day bring eruptions in new trouble spots throughout the world. So we must recognize on this Labor Day, 1955, that there is not peace in the world in any sense of the word.

This Labor Day, 1955, finds the Trade Union movement on the brink of labor unity for the first time in nearly 20 years. Some people have asked me, "Will this be good for the labor movement? Will this be good for America?" My answer to both questions is a very definite, "Yes."

Yes, unity in the Trade Union movement will not only be good for the Trade Union movement, but it will be good for our nation. For, labor long has recognized that what is good for America is good for the Trade Union movement.

The Trade Union movement has always recognized its responsibility to our Government. We recognized it during the war years when we agreed to a "no strike" ban; when we fought for increased production in the factories and the mines and the mills of the nation. And millions of Trade Union members left their jobs to pick up arms and became the greatest soldiers in the field. We know what is good for America; we have faith in America and will fight for America at peace or at war.

—From a Labor Day speech on WCCO by Robert A. Wishart, Secretary-Treasurer of Local 1145, Brotherhood of Teamsters, AFL, Minneapolis, Minn.

## 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:

July, 1954—115.2	August, 1954—115.0
July, 1955—114.7	August, 1955—114.5

Published monthly by the International Brotherhood of Electrical Workers, AFL, 1200 Fifteenth St., N.W., Washington, D. C., for the men and women in the recording, radio and television industries. Entered February 20, 1952, as second-class matter at Washington, D. C., under Act of August 24, 1912. Subscription Price: U. S. and Canada, \$2 per year, in advance.

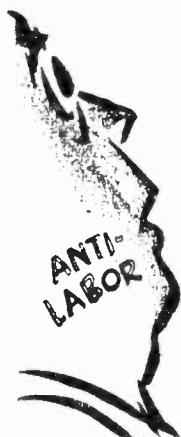
"LOOK! TWO HANDS." From  
a cartoon by Seaman, noted  
cartoonist for Justice,  
ILGWU.



# MONEY and MUZZLES

by **JAMES L. McDEVITT**

*Director, Labor's League for Political Education*



**T**HE keenest political observers in the country are unanimous in their opinion that next year's election campaign will be the most expensive in history.

At the same time, moves have been made throughout the country to tie up trade unionists so that they will be unable to take effective action in electing progressive-minded men and women to Congress, the legislature and city hall.

In short, the big money boys are getting ready to elect their buddies to office while, at the same time, they muzzle the working people of America.

Let's take a look at what's happening—

For one thing, there is the recommendation of the Republicans on the U. S. Senate Privileges and Elections Subcommittee that political contributions by labor unions be completely outlawed. That's right—*completely*.

This recommendation was whole-heartedly supported by none other than the present Attorney General of the United States, Herbert Brownell, Jr.

An interesting sidelight of Brownell's support is the fact that he took a view directly opposite to that of one of his aides who had testified only six weeks earlier before the subcommittee that the constitutionality of such a ban on labor unions was highly doubtful. This aide, Assistant Attorney General Warren Olney, III, had even been sent to testify by Brownell.

Few people doubt why Brownell dislikes organized labor. After all, the working people of the country played a major part in preventing Thomas E. Dewey, whose campaign he managed, from becoming President.

## **Young Republicans Get in the Act**

For another thing, the Young Republican National Federation last June adopted a platform calling for a law that would do the same thing. It said that "no person should be compelled, directly or *indirectly* (!) to contribute to a political campaign or political candidate, as a condition of employment, or pursuit of an occupation. . . ."

That is pretty language and very misleading. No one in the labor movement was ever forced to contribute. But you know and I know what the Young Republicans mean: Leg irons for labor.

## **Wisconsin Muzzle Measure**

Then there is the action of the Wisconsin legislature and the Wisconsin governor in enacting a law to pro-

hibit union members from being politically active. The legislation even bars unions from printing pamphlets endorsing or opposing candidates for office, and could be interpreted to mean that no political discussion could be carried on in even a union meeting.

Wisconsin thus became the first state where the corporate interests have actually imposed the corporate state upon their working people.

#### **No Funds for Radio and TV?**

There is the further effort of the present national Administration to punish the CIO Automobile Workers for spending union funds for regular television and radio programs in which they supported various Democratic candidates, including Sen. Pat McNamara.

Brownell's Justice Department claims that the UAW violated the Taft-Hartley law. Brownell, who is the Administration's political master-mind, apparently thinks it's a crime for a union even to mention a political candidate on any kind of broadcast.

Brownell has never made a move against the oil billionaires who finance reactionary political candidates throughout the country. He's shown no interest in the ways corporation violate the Corrupt Practices Act by indirectly slipping money to election campaign funds. He's never paid any attention to the raising and spending of huge "slush funds" by organized Big Business.

#### **GOP Boss Fears Labor**

Then there is the statement by Ray C. Bliss, Ohio State GOP chairman, who told Ohio Republicans in Washington that the thing he fears most in 1956 is labor's political activity. Friends of Bliss in the state legislature tried to put through a bill similar to the one passed in Wisconsin, but failed.

#### **Bushels for Bush**

A few friends of Connecticut's reactionary Senator, Prescott Bush, raised about \$24,000 for him a full year and a half before election time.

Just imagine what the commercial press and anti-labor columnists would say if 24,000 union members contributed a dollar apiece to whoever runs against Bush.

The New York Times reports that Seymour Halpern (R) was given almost \$34,000 in his 1954 Congressional campaign against Rep. Lester Holtzman (D), who received only some \$4,500. (Nevertheless, Holtzman won.)

The Times also says that the candidates in the 9th Congressional District of Ohio (Toledo) spent a total of \$42,639.42.

#### **Big Money for Mayor's Race**

In Chicago, the two main candidates for mayor this past spring reported that they spent more than \$850,000 in their campaigns.

The report of the defeated candidate, Republican Robert E. Merriam, was most revealing in showing just what his \$409,710.32 paid for. The itemized expenses were:

Headquarters rent, \$12,967. Salaries, \$30,073.63. Telephones, \$23,832.89. Expense accounts, \$5,864.58. Office equipment rental, \$1,656.42. Office expenses, \$16,252.14. Contractual services, \$22,064.42. Payroll taxes, \$5,813.51. Printing, \$65,721.09. Advertising, \$95,401.16. Miscellaneous, \$13,133.48. Primary Election Day expenses, \$18,280. General Election Day expenses, \$98,650.

The point that I am making is that AFL members must contribute voluntarily to Labor's League for Political Education to fight the anti-worker moves and to counteract, as far as possible, the huge war chests that are built up to send their enemies to the nation's capital and the statehouse.

As AFL President George Meany has pointed out, the foes of trade unionists have opened a new line of attack through politics and legislation.

Trade unionists can attain progressive legislative goals once they have marshaled their political power that by nature lies in the vast membership of the labor movement.

### **FOR PENSION BENEFIT CLAUSES, BROADCASTING AND RECORDING AGREEMENTS**

*It is agreed that, in accord with the National Employees Benefit Agreement entered into between the National Electrical Contractors' Association and the International Brotherhood of Electrical Workers on September 3, 1946, as amended, the Employer will forward weekly an amount equal to 1 per cent of his gross labor payroll paid to workmen employed under the terms of this Agreement, to \_\_\_\_\_ (local benefit board designation). The Employer will also forward weekly, a payroll report on the form prescribed for that purpose by the National Board.*

# LIFTED

The following story is based upon a radio-TV column by Lawrence Laurent in "The Washington Post."

## THE CURTAIN IS



## A LITTLE

### *... to let IBEW technicians through*

**W**TOP-TV, Washington, D.C., had been trying for several months to get permission for a television pickup from the Russian Embassy in Washington.

One morning, last month, the station received a telephone call from the Russian Embassy. "Would you like to televise our party tonight for the Russian farmers?" a Russian-accented voice asked.

A CBS producer at the station sputtered: "Are you kidding?"

There was a silence. The Russian voice spoke again: "What does 'Are you kidding' mean?"

The producer said it mean't he'd be right over.

Thus, was set up the first live pickup, radio or TV, from the Russian Embassy in Washington.

The pickup was but a brief part of "Douglas Edwards and the News." Although the pickup was brief, the preparations were not.

A 12-man television crew and a remote unit arrived at the Embassy at 11:30 a. m. They were joined by four workmen from the telephone company.

The crew wanted to park the remote unit truck on the lawn of the embassy.

A policeman warned: "You can't do that in the District of Columbia."

"That's all right," said the producer, "this is Russian territory." The cop grinned and agreed.

The doors of the Russian Embassy are thick, wooden and normally closed. As the crew began entering with dozens of pieces of equipment, they were formally admitted each time by a doorman.

The doorman tired of opening the door after

the crew made two dozen trips. He finally opened both doors and left them open. The crew went to work.

"Didn't these guys ever hear of air conditioning?" a technician complained.

"Sure," answered another technician, "They call it Siberia."

The crew used three cameras: one on the second floor landing, a site dominated by huge portraits of Stalin and Lenin; the Gold Room and a room on the south side of the landing which was identified to be "The Representatives Room."

CBS newsman Bill Shadel had been picked to interview the Russian farmers during the party. Shadel was worried. His printable comment was, "Such names!"



The Russian Embassy at 1125 16th Street, N. W., in Washington, D. C.

There were several power failures during testing of the equipment. One Embassy official walked up to assistant director Tim Doherty and asked: "Everything O.K.?"

"Yes," said Doherty, "except there's no power for the cameras."

"That is your problem," answered the Russian official, and he added: "Everything's O.K."

The show went on without further hitches.

Ballots mailed this month to all local unions having "A" members call for an increase in payments to the Pension Fund; here is an explanation of why the increase is requested.

# The Pension Plan and The Referendum

ON September 2, ballots were sent to all our local unions having "A" members, asking them to vote for a monthly increase in payment to our Pension Fund, *if* they are working and *if* their employers are not paying toward our Pension Fund.

Your International Officers have not been happy about having to issue this referendum. It is never pleasant to ask for more money. That is why rather stringent economy measures are put into effect in our Brotherhood operational expenses, so that our 70 cents per capita will not have to be raised. Our dues are among the lowest in the entire labor movement. Every effort is being made to keep them at that low figure.

## Every Penny Works

However, the payments to and from our Pension Fund is a different story. Sufficient money must be put into the fund now to pay money out of it in the years ahead. We can honestly say that everything possible to build up our Pension reserves was done, before we asked our members for more money. Every available penny

has been put to work to earn more interest to add to the fund. Our Silver Jubilee Plan was started and our local unions and individuals have loaned and loaned generously—more than seven million dollars to our Pension Fund.

## Brief Review

But let us review briefly our Pension Story—recall the facts and figures, so that all will have a picture of just how far we have come—and how far we yet have to go.

(1) Our Pension Plan was adopted at our Detroit Convention in August 1927. The pension—\$40 a month—became effective January 1, 1928. The amount then paid into our Pension Fund by our members was 37 cents a month.

(2) Very soon we were forced to realize that 37 cents a month was completely inadequate to finance our Pension Plan, as more and more members went on pension. Assessments had to be levied so payments could be made. A special assessment of 70 cents was levied and allocated to the Pension Fund for the first six

months of 1944, and in July 1944 this assessment was reduced to 20 cents. At the San Francisco Convention in 1946, this 20-cent assessment was made a permanent part of the money to go to the Pension Benefit Fund.

In addition, 3 cents of the amount apportioned to the General Fund was given over to the Pension Fund, making a total of 60 cents monthly. At that 1946 Convention, another important change was made. The pension benefit was raised from \$40 to \$50 a month, effective January 1, 1947.

## NECA Agreement

(3) Now the International Officers and members realized that 60 cents a month still fell far short of the amount needed to put our plan on a more sound basis, so in that same year we entered into an agreement with the National Electrical Contractors Association which enabled us to carry on without further increase in payments at that time.

(4) Our members are familiar with the one per cent plan. This NECA-

IBEW joint enterprise to give our people pensions, *wherever* they work, has been one of the finest results to come out of the good labor-management relations which exist between the Contractors and our Brotherhood. But this was not enough. Our Pension rolls were growing. Our actuaries estimated that \$6 was the amount needed monthly per member to make our fund safe.

So we did other things. Our members voted to add a dollar to their pension payments for four years and this amount was made permanent by action of our 1954 Convention in Chicago.

#### Steady Growth

That is a brief summary of the Pension Story as it has developed through the years. And we have never missed making the pension payments each month. It is a good story—a story of growth and a constant climb toward actuarial soundness. In 1946, the amount in our Pension Fund was \$1,886,000. Today we have \$34,100,000 in that fund, not counting what is in the employers' fund, collected for pensions. That is the bright side of the story. Here is the other side.

All the time that our Pension funds have been growing, our "A" membership has been rising, and our Pension rolls are rising also. Life expectancy is increasing tremendously. Within three short years life expectancy in this country has jumped two full years, from age 67 to age 69. And, as we have pointed out before, that means that a child, born today and taking into consideration accidents, wars, disease and all other mishaps that may befall him, still has a life expectancy of 69 years.

For those who reach 65, the life expectancy figure is much better. On the average, our Pension members are living 13 years after going on pension, and there were 6,525 drawing our pension June 1, 1955.

In 10 more years we will have 22,503 members on pension and as life expectancy increases, even that high figure may be raised sharply. In 10

years we'll need about \$15 million to meet out pension obligations *for a single year!* That estimate is based on normal times. If we have a depression, many eligible for pensions but still working at the trade, will be added to our rolls, and our reserves will melt away.

Facts are not always easy to face. We sincerely wish that we could go on indefinitely meeting our pension payroll with no worry as to additional funds. It just doesn't work that way. We've got to get more money into the fund, beginning right now, or before too many years our funds will be so diminished that we'll have to cut the pension drastically, as some other labor organizations had to do.

There is another serious consideration which we have tried to bring forcefully to your attention for more than a year. This problem is that some employers are paying the one per cent on their employees who are our "A" members, and others are not. This is not a fair situation and our Contractors have threatened to terminate their Employees Benefit Agreement *and their payments*, unless we take steps to have other employers share the burden.

#### Contractors' View

However, there is a point we wish to make clear here. The Contractors feel a deep sense of responsibility for the success of our Pension Plan. They, too, want it to work. They have agreed not to reduce their payments but to pay all their one per cent collections in the Pension Benefit Trust Fund, if we in turn will do our part to get other employers to share the burden and get more money into the fund.

Our members can insure their security now, by voting favorably, to guarantee an income of \$50 a month when their time comes to retire. And facing facts squarely, and we have studied the problem from every angle, the only way for you to get your \$50 a month out of the fund, is to see that more money goes into it *here and now.*

## TYPICAL INSURANCE COMPANY MONTHLY PREMIUMS

### LIFE ANNUITY DEFERRED TO AGE 65

AGE AT ENTRY INTO PLAN	PREMIUM FOR \$50 MONTHLY BENEFIT (SEE NOTE)
20	\$6.27
21	6.53
22	6.79
23	7.07
24	7.37
25	7.69
26	8.02
27	8.37
28	8.75
29	9.15
30	9.58
31	10.03
32	10.52
33	11.04
34	11.61
35	12.21
36	10.29
37	10.85
38	11.46
39	12.12
40	12.85
41	10.23
42	10.88
43	11.59
44	12.38
45	13.26

#### NOTE

At ages 36-40, the benefit is \$40.  
At ages 41-45, the benefit is \$30.

#### ALSO

The rates given are for males; female rates would be substantially higher.

*There is another consideration to be taken into account in viewing this table. It is based on payments for those entering the plan now. For those who went into the plan prior to May 1, 1952 and thus are eligible to receive the full \$50 after 20 years' service, the premiums would again, be much higher. For instance for those who entered at the age group 36-40, add 25 percent. For those who entered at age 41-45, add 66 2/3 percent.*



# State Court Says "Wreck" Law Bans Bargaining

The Louisiana Supreme Court interprets the "right-to-wreck" law in that state to prohibit a union which represents a majority of employes in a unit from seeking to become the exclusive bargaining agent for that unit.

The court handed down its decision on May 23, 1955 in a case involving Mirabeau Food Store and Local Union 437 of the Amalgamated Meat Cutters, A. F. of L. Mirabeau had two meat cutters, both of whom were members of the Amalgamated. The union asked the company to sign a contract in which it would be the sole bargaining agent for these employes. When the company refused to sign the contract, the two meat cutters went on strike and picketed the store. The company successfully sought an injunction prohibiting the picketing. It was the legality of this injunction which was under consideration by the court.

In seeking the injunction, the company claimed that the provision in the proposed contract making the union the collective bargaining agent for its meat cutter employes violated Louisiana's so-called "right-to-work" law. This was the sole issue before the court.

In reaching its decision upholding the injunction against the union, the majority of the court pointed to

Section 1 of the Louisiana Law which provides that the "right of a person or persons to work shall not be denied or abridged on account of membership or non-membership in any labor union or labor organization." The court said that the key word in his provision is "abridged."

Centering its attention on this one word, the court said: "Would a non-union man's rights be diminished, reduced, curtailed, or shortened if a union acted as his agent? We answer that question in the affirmative."

In the light of this interpretation of the law, the court upheld the legality of the injunction against the union. The importance of this decision is that it demonstrates what organized labor has contended ever since "right-to-wreck" laws became an issue. These laws are not simply intended to bar all forms of union security. Their real purpose is to prevent effective collective bargaining and to restore 100 per cent non-union conditions.

Two justices dissented from the majority opinion. It was their position that even the "right-to-work" law does not prevent a union from seeking to be recognized as the sole bargaining agent if it represents a majority of the employes in the unit concerned.

## Franklin A. George

1904-1955



With deep regret we record the passing of Brother George on September 8, 1955.

His career in radio began when he became a ship-board operator on the Great Lakes. Employed at WCFL, Chicago from 1932 to 1947, he joined Local Union 134 on April 12, 1932. His traveling card was deposited in Local Union 1220 on June 30, 1939, as one of the group instrumental in obtaining 1220's charter. He served in various offices of the local union and one term as its president. He was appointed by President Tracy to the International staff on August 27, 1950 and worked in the Fourth District.

Brother George was well known in the Chicago area for his interest in organizing; he was also well known as the result of his active interest in hunting, fishing and archery.

Wherever Franklin went, he made friends. To his family—our sincere sympathy. With them, we mourn the passing of a true Brother. May the memories of what he did and how he lived inspire us to carry on in the traditions in keeping with his example.



## Labor Board Orders Company to Bargain with Repeatermen and Toll Testboardmen

*The Pacific Telephone & Telegraph Company and Bell Telephone Company of Nevada: The Pacific Telephone & Telegraph Co. (20-CA-958, 961, 962; 113 NLRB No. 60), San Francisco, Calif., August 9, 1955.*

Board orders companies to bargain collectively, upon request, with Order of Repeatermen and Toll Testboardmen, Local 1011, IBEW, AFL, as exclusive representative of all their toll maintenance employees in the Northern California-Nevada and Southern California areas; cease and desist from contributing support to Communications Workers of America, CIO, by giving effect to April 27, 1954 agreement affecting toll maintenance employees in the Northern California-Nevada area; or from in any other manner interfering with, restraining or coercing employees in the exercise of their rights to self-organization; and post compliance notices for 60 days.

At the same time, Board orders The Pacific Telephone & Telegraph Company to bargain collectively, upon request, with Order of Repeatermen and Toll Testboardmen, Local 1011, IBEW, AFL, as exclusive representative of (1) toll maintenance employees in the Washington-Idaho area, including PBX teletypewriter repairmen under toll supervision, and (2) toll maintenance employees in the Oregon area, including transmissionmen, toll central office repairmen principally engaged in work on toll terminal equipment, telegraph repeatermen, toll testboardmen, and PBX repairmen (teletype); cease and

desist from interfering with, restraining or coercing employees in the exercise of their rights to self-organization; and post compliance notices for 60 days.

A majority of the Board—Chairman Farmer and Members Murdock and Leedom—found, contrary to the companies' contentions, that the three units continued to be appropriate in April 1954 and thereafter. As to the companies' assertion that even if the units were appropriate for bargaining purposes, the refusal to bargain must be excused because the companies had a good faith doubt as to their appropriateness, the majority pointed to the opinion of the Court of Appeals for the Ninth Circuit in the related injunction proceeding against the companies pursuant to Section 10 (j).

"There, the Court rejected the Respondents' attempt to analogize the continuing presumption of an appropriate unit to the presumption of continued majority. The Court noted that with respect to majority once shown, the presumption is rebuttable after expiration of the certificate year in a subsequent complaint case, and that a good faith doubt in the Employer suffices as a defense. The Court specifically stated, however, that if the Board's prior designation of the units was still valid, as we find that it was, the Respondents obviously violated the designations. It added that the Respondents' possible good-faith doubt of the current appropriateness of the units did not warrant their disregarding the Board's previous designation of the units as appropriate. Moreover, in a concurring opinion Circuit Judge Pope indicated that the Respondents' doubt was not in good faith, for he stated that he thought a fair reading of the Decision and Order of March 17, 1954, (107 NLRB 1615), on which the Respondents allegedly relied, did *not* support the view that the Board was withdrawing its certification of ORTT's three separate units. We note also that in order to remove any doubt as to the effect of the Decision and Order of March 17, 1954, the Board issued a unanimous Supplemental Decision on May 14, 1954 (108 NLRB 862) clearly stating that the Decision and Order did not pass upon the validity of ORTT's certifications. Yet the Respondents thereafter persisted in their unfair labor practices."

### —One Moment Please—

Announcers have a remarkably small percentage of error considering the amount of talking they do, so "boners" are collected as rare items by Helen Sioussat, CBS Director of Talks. One of her favorites came in a fire-prevention announcement: "Don't let fire destroy your home. Sooty chimneys are a frequent cause of such disasters. Protect your wife and children. Have a fire inspector check them every three months."

*\$1,000 reward for information leading to arrest and conviction of an individual or company fraudulently branding receiving tubes...*

## THE REPROCESSED TUBE RACKET

A REWARD of \$1,000 is being offered by Sylvania Electric Products, Inc., for information leading to the arrest and conviction of any individual or company fraudulently branding small radio and television receiving tubes with the Sylvania name, it was announced recently by D. W. Gunn, general sales manager for the company's electronic products.

Pointing out that the counterfeiting of tubes is a "crime punishable by fine and imprisonment," Mr. Gunn said in a letter to Sylvania service dealers that "we're taking off the gloves" in a campaign against the "criminal practices that are robbing service dealers, customers, and manufacturers alike."

The "unscrupulous cheats" in the "reprocessed tube racket" have been of concern to Sylvania for some time, Mr. Gunn said. The procedure followed by one type of tube-reprocessing racketeer involves the purchase, for one to three cents each, of old tubes whose filaments are still intact from TV service shops, whose operators may be unaware of the tubes' intended use. These tubes are cleaned and polished, and the original manufacturer's name is buffed off. Then they are rebranded with a top company identification and fraudulent warranty data. There are records of such tubes being sold to local distributors for as much as 80 per cent of the market price.

Mr. Gunn made it clear that a second category of tube reprocessor was an even more serious menace. While it is comparatively easy to recognize a discarded tube which has been cleaned on the outside, there are reprocessors who can make the inside electrical elements appear new as well.

By subjecting the tube's cathode to a heating process called "toasting," an old tube can be restored temporarily to usefulness. The "burn mark" which appears on the inside of a used tube's glass envelope is eliminated by applying a blow torch flame to the outside. After washing, polishing and rebranding on the outside surfaces, the tube appears to be new.

Although there are symptoms which indicate a reprocessed tube, the customer who thinks he is buying new tubes may be deceived by reprocessed ones.

"The few pennies which a serviceman may make in selling old tubes not only can mean the loss of dollars to others—it may also cost the entire industry dearly in loss of reputation and public confidence," Mr. Gunn said.

In his letter to dealers, Mr. Gunn urged each of them to take full advantage of the \$1,000 reward offer. "Counterfeiting is injuring your reputation and your business now," he said.

## Labor Board Issues Ruling on 'Hot Goods'

Several months ago, the NLRB ruled that if an employer, in effect, repudiates a "hot goods" clause by instructing its employees to work on or handle hot goods, an effort by a union to enforce the clause is illegal. The Board went even further, more recently in the case of *Carpenters' Union and the Sand Door & Plywood Co.* (113 NLRB No. 123, Aug. 26, 1955).

A majority of the Board has again said that hot goods clauses are not illegal, as such. A company which has an agreement containing such a clause may tell its employees not to handle hot goods but until it does so, a strike or a concerted refusal to handle the goods is illegal.

The Board's conclusion states:

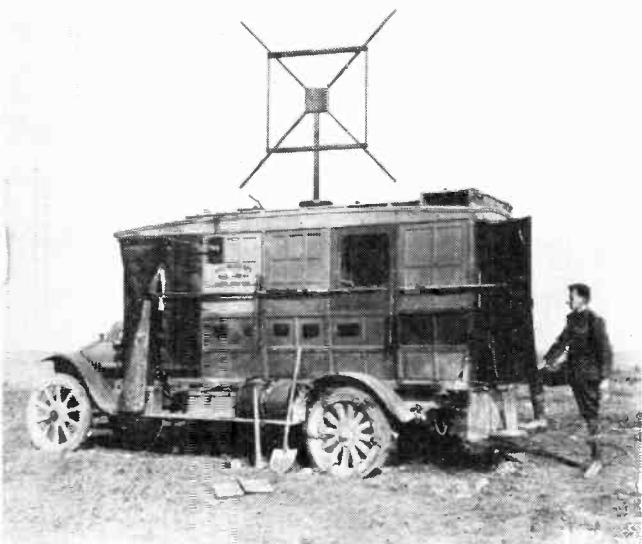
"The employer, but not the union, may instruct his employees to cease handling goods sought to be boycotted. Until the employer instructs his employees that they need not handle the 'unfair' product, a strike or a concerted refusal to handle such goods constitutes 'a strike or concerted refusal in the course of employment' to handle the goods within the meaning of Section 8(b) (4) (A). . . . We hold that, regardless of the existence of a 'hot cargo' clause, any direct appeal to employees by a union to engage in a strike or concerted refusal to handle a product is proscribed by the Act when one of the objectives set forth in Section 8(b) (4) (A) is present."



**1904**—An auto-car used for telegraph communications by the Signal Corps in an early attempt at mechanization. This was the year a young mechanic named Henry Ford set a speed record of 90 mph.

**T**HE U. S. Army Signal Corps was “born” in 1860 in the wild and wooly West . . . in Indian country, to be exact. There was an Army physician named Lt. Albert Myer, on duty at one of the Western army posts. Experienced in training the deaf to

## 95<sup>th</sup> Anniversary



**1914**—A Signal Corps “radio-tractor” of World War I vintage. With such a mobile unit the U. S. Army fought to get the boys out of the trenches by Christmas.

communicate with each other, Lieutenant Myer was intrigued by Indian smoke signals billowing above the distant hills. He devised a wig-wag system with flags which was later adopted by the army and which is learned today by all Boy Scouts and Navy trainees. Called semaphore signaling, it became a basic form of communications in the Far West.

The two crossed flags of semaphore signaling form the Signal Corps insignia today.

One of the great field commanders of World War II, General Omar Bradley, pays this tribute to the work of the Signal Corps: “While mobility was the ‘secret’ U. S. weapon that defeated Von Runstedt in the Ardennes, it owes its effectiveness to the success of U. S. Army staff training. With division, corps, and Army staffs schooled in the same language, practices, and techniques, we could resort to sketchy oral orders with an assurance of perfect understanding between U. S. commands. Those orders, in turn, were transmitted easily over the most valued accessory of all the elaborate telephone systems we carried with us into the field. From my desk in Luxembourg, I was never more than 30 seconds by phone from any of the armies. If necessary, I could have called every division in the line. Signal Corps officers like to remind us that ‘although Congress can make a general, it takes communications to make a commander’. The maxim was never more brilliantly evidenced than in this battle for the Ardennes.”



**1951**—Members of a Telephone Jump Team, 3rd Signal Company, with a wire dispenser used during the Korean conflict.



**1954**—A Signal Corps tactical television cameraman covered simulated battle action from the concealment of a tree stump, picking up a picture for battalion headquarters.

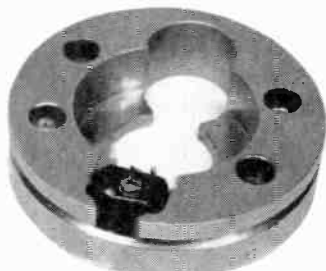
**SEPTEMBER, 1955**

**11**



TAPE HEAD

# Rotating Reading Heads



WIRE HEAD

## FOR MAGNETIC TAPE AND WIRE

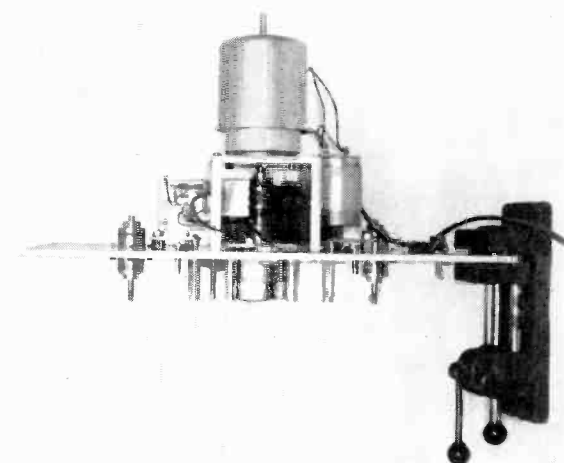
A READING head that makes possible the close examination of a short section of magnetic tape or wire is now being used at the National Bureau of Standards in Washington, D. C., to locate and investigate faults in magnetic recording media.

Developed by J. R. Sorrells of the NBS data processing systems laboratory, this instrument makes use of a reading head mounted on a rapidly rotating drum so that the head is in contact with the tape for a part of each revolution. Since the tape is held stationary, the head reads exactly the same set of signals once each revolution, and the playback can be displayed continuously on an oscilloscope and observed as long as desired.

In addition to providing a means for closely examining the playback signals from a specific portion of the tape, the reader can be used to scan through and edit a complete tape. The observer can easily locate any defective signals along the entire length of the recorded tape. Interchangeable parts provide a means for examining several different sizes of magnetic tape or wire.

### The Primary Factors

In the design and development of magnetic tape and wire equipment for external pulse storage in electronic digital computer systems, one of the primary considerations has been reliability of operation. An important factor in magnetic storage is the condition of the tape surface itself. Errors in operation can be caused by any of several types of tape faults such as "holes" and raised spots in the magnetic surface, or creases in the tape. Very often the loss of several pulses or the gain of a single pulse may be caused by a flaw that is too small to be visible to the unaided eye. Conventional means of tape reading are not suitable for locating errors, since in the usual tape transport mechanism the tape is moved continuously past a stationary head. In investigating tape for faults it is desirable to read a small specific portion of the tape over and over again at a rapid rate, and to display on an oscilloscope a steady, clear picture of the playback signals. The rotating head reading device developed at NBS provides such a repetitive method for examining tape. Once faults are located, they can be



Edge view of rotating head reader showing interior mechanism. Electrical connections from the head are made through the slip rings and brushes in the center. At right is driving motor. On left of panel are studs for holding tape reels and for guiding the tape past the rotating drums.



The rotating reading head on this machine (lower center of panel) makes possible the close examination of a short section of magnetic tape or wire. The tape is held stationary; the drum revolves rapidly and for a part of each revolution the reading head is in contact with the tape.



removed or else avoided in the future, thus increasing the reliability of the tape.

For convenience, the tape reader is mounted on a vertical panel. Near the two upper corners are the shafts on which the tape reels are mounted. Although tape must be reeled manually on the NBS model, a motor drive or stepping mechanism could easily be attached. The idler shafts are friction loaded to maintain the proper tension on the tape for reading as the tape is reeled along.

At the lower center of the panel is the rotating drum on which the reading head is mounted. The drum is  $2\frac{7}{8}$  in. in diameter and rotates at 10 rps; thus the equivalent tape speed is 90 in./sec. The drum is made in two sections. The reading head is mounted on one section and has a groove or track machined around the periphery in which the tape or wire rides. This section is easily removed, and other similar sections may be substituted for different sizes of tape or wire.

#### **Photoelectric Cell Used**

The section of the drum nearest the panel is fastened to the drive shaft and is not ordinarily removed. This section is cup-shaped with the open side toward the panel. A photoelectric cell is mounted on the panel, inside the cup-shaped section, close to the periphery of the drum. A small aperture in the drum wall makes it possible to focus an externally mounted lamp on the photocell when the drum is in the proper position.

Each time the hole in the drum wall passes the light source, the light strikes the photocell and causes a small output pulse from the cell. The pulse is applied to a cathode follower which in turn triggers the oscilloscope sweep. The aperture in the drum wall is so located that the trigger pulse occurs just before the reading head makes contact with the tape, so that the oscilloscope sweep always begins slightly before the first pulse is sensed by the head. It is this timing system that provides a steady picture of the repeated playback signals on the oscilloscope screen.

Since the reading head is mounted on a revolving drum, electrical connections must be made through slip rings and brushes. A specialized slip ring assembly using commercial brushes was designed and constructed for this purpose. The three rings are made of electro-deposited silver on a premachined bakelite cylinder; the silver is further machined for good contact surfaces. The cylinder is mounted between the drum and the driving motor, and a two-wire shielded cable runs from the slip rings through the shaft to the reading head.

Trials of the equipment in the laboratory prove its usefulness in locating tape flaws and in reading recorded pulses. The playback signal on the oscilloscope screen shifts such a small amount that photographs taken with an exposure time of 15 sec reveal no evidence of blurring. Moreover, there is no noticeable noise from the slip ring and brush assembly.

## **IRE Professional Group To Hold Two Gatherings**

Two meetings of professional electronics engineers concerned with broadcasting are scheduled in coming weeks by Professional Groups of the Institute of Radio Engineers. Topics discussed at these meetings will be of technical interest to IBEW members.

The Fifth Annual Fall Symposium of the Professional Group on Broadcast Transmission Systems will be held at the Hamilton Hotel in Washington, D. C., September 23 and 24. Registration is set for 9 A.M., September 23.

The technical program will be built around the new techniques developing in broadcasting and a consideration of television signal propagation factors as related to television allocation engineering. In the field of standard broadcasting, papers will be presented dealing with experimental experience in the remote control of directional and high power antenna systems. In FM broadcasting, new multiplex trends will be examined. In television, the latest features in the handling of color programs, the integration of color equipment with monochrome facilities and higher power transmitting equipment will be the subject of papers and discussion. Special attention will be directed toward development of new time-saving techniques using magnetic tape and magnetic stripe film.

A copy of "Transactions," which reports the meeting, will be sent to all persons registering for the sessions.

#### **Re Electron Devices**

On October 24 and 25 the IRE Professional Group on Electron Devices will hold its first annual technical meeting at the Shoreham Hotel in Washington. Specialists will gather from government and industry for an exchange of information on advanced developments and applications of both electron tubes and transistors in radio, television, business machines, and in military equipment. Approximately 1,000 engineers and scientists are expected to attend.

## **Resolution Praises Tracy's Union Career**

A memorial resolution praising the trade union career of the late Daniel W. Tracy, AFL Executive Council member and former president of the AFL Electrical Workers, was adopted by the AFL Council at its summer meeting in Chicago.

The resolution declared that during his lifetime in the trade union movement "he demonstrated his integrity, courage and devotion to the highest ideals of American trade unionism."

The council members ordered a copy of the resolution properly inscribed and sent to Mrs. Tracy.



### Automatic TV Iris

An RCA-developed automatic iris, for use with closed-circuit industrial television cameras, which electronically compensates for changing light levels to assure TV pictures of constant brightness and contrast has been announced by RCA.

Developed for use with RCA's ITV-6 closed-circuit system, the iris automatically provides constant lighting for the camera's Vidicon pickup tube regardless of external light levels. The iris mechanism automatically masks the lens with the proper filter for any given external light condition.

The automatic iris, which resembles a roll of 35mm film, is mounted with motor-driven regulators on the front of the ITV-6 camera. The film serves as a filter and is continuously graded in density, from clear to heavy. Automatic or manual remote-control of the camera iris is provided by an iris control mechanism located at the ITV monitor, which may be a considerable distance from the camera.

In much the same manner that a phototube responds to light, the camera's Vidicon pickup tube responds to the intensity of external light striking it. With corresponding intensity, the Vidicon activates the iris control mechanism which, in turn, triggers the motor regulators on the camera. The motors automatically unreel the film between the lens and the Vidicon tube until the filter of proper density is in place.

### Color Service Manual

The RCA Service Company has published a completely up-to-date manual designed to aid television service dealers and technicians in installation and maintenance of color TV receivers for the home was announced today by the RCA Service Company, Inc.

The 36-page manual was prepared as a supplement to the publication, "Practical Color Television for the Service Industry," published by the RCA Service Company in 1952 and since utilized by the TV servicing industry as the authoritative source of data on the subject.

While the supplement carries schematic diagrams and other data in detail dealing primarily with RCA Victor's two new 21-inch color receivers (Models 21CT661 and

21CT662), the publication also provides a vast amount of additional information on the general subject of color TV receivers.

Extensive text, color and black-and-white diagrams and charts, and photographs—based on experience and technological developments since publication of the original manual—account for much of the space in the new booklet.

Included is a description of all basic components of the color RCA television kinescope as well as an outline of the steps followed in its assembly. Outstanding features of the 26-tube circuit of the new RCA Victor receivers also are described, together with a block diagram of the circuit.

One section of the booklet is devoted to a discussion of the demodulation system employed in the two RCA Victor sets. Other sections contain a break-down of servicing hints, as well as steps to follow in installing and setting up color TV receivers.

National distribution of the booklet will be handled by the RCA Tube Division through RCA distributors of electron tubes and components. Price is 75 cents per copy. Copies also may be purchased from the RCA Service Company, Inc., Camden, N. J.

### Smallest Walkie-Talkie

The smallest walkie-talkie FM radio ever built—a transistorized instrument tiny enough to be carried in a shirt pocket, yet powerful enough for two-way communication over a quarter-mile range—has been developed experimentally by the Radio Corporation of America and announced by Theodore A. Smith, vice president and general manager, RCA Engineering Products Division.

The U. S. Signal Corps has purchased a quantity of the developmental walkie-talkie radios (transceivers) for field tests and evaluation as communications devices for squads and other small tactical military groups in the field. Tests are being conducted by the Operations Research Office, Department of Defense, at Fort Carson, Colo.

The ultra-miniature FM transceiver, designed for military communications in the 45-to-50 megacycle

band, features a receiver which is small enough to store in a vest pocket. The receiver could be produced as an independent unit for one-way communication applications, to link, for example, a platoon or squad leader with individual soldiers.

A completely self-contained and self-powered radio, the RCA transistorized transceiver houses a receiver-transmitter, microphone-earphone, collapsible antenna, and a battery in a single compact assembly which weighs only 15 ounces and approximates a small tobacco tin in size. It measures only 5½ inches high, 3 inches wide, and 1 inch deep.

"Built around 12 transistors and a single electron tube, the pocket-size transceiver represents a new design approach two walkie-talkie equipment," Mr. Smith said. "Application of transistors and new electronic circuitry made possible the achievement of an ultra-miniature unit which also offers the advantages of high stability, dependable performance, long battery life, and ruggedness found in appreciably larger walkie-talkies. Further, the equipment designed is readily adaptable for fully automatic production.

"Designed for quick, convenient operation, the RCA transceiver incorporates only two simple controls for two-way communication—a push-to-talk button and a combination on-off and volume-control switch. It requires no tuning or adjustment, and the built-in microphone-earphone provides clearly audible reception when held several inches from the ear."

The ultra-miniature walkie-talkie can be preset for operation on any frequency between 45 and 50 megacycles; incorporates an all-transistorized superheterodyne receiver and a two-transistor, one-tube transmitter; and provides up to ten hours of service life with a single tiny radio battery. Its construction features corrosion-resistant materials.

### Miniature Camera

A miniature television camera which is slightly more than five inches long and a little more than 2½ inches in diameter was recently demonstrated at the Dueseldorf Electronics Show by Grundig, a German radio and electronics equipment manufacturer.

The tiny camera is equipped with a Mini-Resistron tube which is 90 mm. long and has a diameter of 15 mm. There are a number of sub-miniature tubes for amplification purposes in the camera. Lenses are interchangeable and are normal types as used in 8 mm. sub-standard film cameras.

The camera is mounted on a "gooseneck" base, much like a desk lamp.

Grundig, which has been producing a larger type of TV camera for some time, built the new model around a specially designed tube, produced by a Prof. I. W. Heimann. The firm plans to promote the miniature camera as an industrial item.

### "Biflex" Speakers

Altec Lansing Corporation has announced the newest product of the company's acoustic laboratories in the form of the "Biflex" speaker. The Altec 1956 product will include three "Biflex" speaker systems, distinguished by the use of multiple concentric compliances, with compliance not only at the outer edge of the speaker cone but an additional compliance approximately midway down the slope of the cone. Altec states that the "Biflex" speaker permits of single unit loudspeakers with exceptionally wide and smooth frequency ranges.

The new Altec Lansing speakers are the 8-inch 408A, the 12-inch 412A and the 15-inch 415A.

### Sounds of Building

Flexible construction sound systems which link all work areas with central offices and can be expanded as the project grows floor by floor, are rapidly emerging as important construction aids for the nation's building trades, according to M. J. Yahr, manager, Theater and Sound Products, Engineering Products Division, Radio Corporation of America.

A relatively new development in the building trades, he said, the construction sound system speeds and facilitates building operations by making possible quick, complete, and private communication between the man with the blueprint and the man on the girders.

Typical of the growing use of sound systems in building projects, Mr. Yahr points out, are installations which are serving two new buildings now under construction in New York City. The installations, which use standard RCA sound equipment, were planned and supplied by the Commercial Radio-Sound Corporation, RCA sound systems distributor in New York.

One RCA sound system honeycombs the New York Coliseum and enables an operator at a central telephone switchboard to page to connecting telephones any people on the project. Basic sound equipment installed includes 126 loudspeakers, a microphone, two 250-watt amplifiers, and associated preamplifiers. The microphone is adjacent to the telephone switchboard which has lines to various construction offices and to locations on each floor of the new building. A call from any office to any floor foreman, for example, can be completed quickly by having the operator page the foreman to the nearest phone in the girder network.

A second RCA construction sound system is providing communication throughout the new Socony-Vacuum skyscraper, a 42-story building now going up at 42nd Street and Lexington Avenue, New York. The microphone, preamplifier, and switchboard are installed in an office one block away from the construction. Installed throughout the building project are 150 RCA loudspeakers which enable the office force to page to a phone any individual aloft in the girders.

# Station Breaks



## Film Editors to Vote

The NLRB has ordered an election this month (September) among the editors and assistant editors, newsreel editors in the newsreel department and the film exchange department at NBC in Los Angeles. The IATSE and NABET are contenders for representation of this group.

An election will also be held within 30 days of August 31 among the film service employees of the American Broadcasting Company in New York, to determine whether the employees of the company will be represented by the IATSE or NABET. Included in the unit are master editors, program editors, assistant editors, film traffic controllers, print inspectors and film handlers.

## New WGN-TV Antenna

Station WGN-TV, Chicago, will install a new \$300,000 50 kw transmitter on the 40th floor of the new Prudential Building in the Windy City next month. It is expected to go into operation by Thanksgiving Day, beaming the signal from a new 73-foot antenna atop the same building. The antenna was welded into place in August. It is said to be able to withstand gales of up to 135 miles per hour. The new rig is 304 feet higher than the present one atop Tribune Tower, extending 914 feet above ground level.

## Diesel Did It

WBZ-AM-TV, Boston, was off the air because of a power failure at 10:26 on a recent Friday morning, but the station was back on the air in three minutes, thanks to diesel power.

At the time, the station was busy covering the devastating flood which had run rampant through Southern Massachusetts. Twenty-seven cameramen were covering flood damage and broadcasting emergency appeals.

## Alabama Station Fire

Station WCOV-TV, Montgomery, Ala., suffered a disastrous fire early in August, with virtually all technical equipment lost to the blaze. Members of IBEW Local 1299 employed at the station were able to resume operations a few days later, thanks to emergency equipment shipped by a manufacturer. The studio equipment of the AM station was also destroyed, but AM operations were able to begin almost immediately from the transmitter.

Television studio equipment was destroyed, and studios and offices were damaged in the \$350,000 fire, which swept the studio and TV transmitter before daylight one Friday morning.

As far as first investigations could determine, the fire originated in a master time clock. The loss was fully covered by insurance.

## Station Story Filmed

KLAC, Los Angeles, an enterprising independent operation employing members of IBEW Local 45, has produced a 20-minute film story of its operation for on-the-air promotions. Costing approximately \$10,000 to produce, the color film is called, aptly enough, "The KLAC Story." The film is also being shown at trade luncheons on the East and West Coasts. Shown to advertising clients, the film shows, incidentally, the quality of union engineering.

## Shreveport Tower

KTBS-TV, Shreveport, La., which employs members of IBEW Local 1178, has a new 1,153 foot tower, and the station went on the air early in September. The tower is reported to be the world's tenth tallest man-made object and the tallest structure in Louisiana.

## WGTH-TV Affiliates

Agreement was announced recently of an October 1 affiliation of WGTH-TV Hartford with CBS-TV. CBS purchased the station last July from General Tele-radio Inc. for \$650,000. The sale is pending FCC approval.

The agreement was disclosed jointly by Alex Campbell, Jr., of General-Times Corp. which owns and operates the uhf channel 18 station, and by Edward P. Shurick, national director of station relations, CBS-TV. The am affiliate, also owned and operated by General-Times was not affected by the proposed sale to CBS.

The AM and TV outlets were separated on August 15. The TV station went on the air last October. When affiliated with CBS, the station will operate full time.

## Technician-Engineer