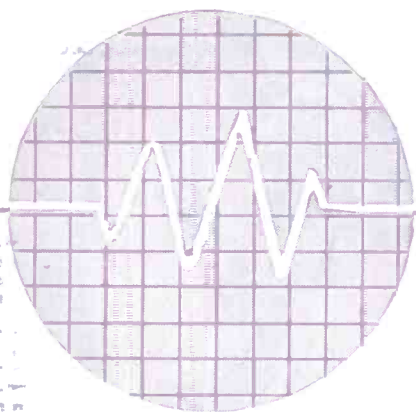


**VIEWS OF THE DIVISION
PROGRESS MEETING**



TECHNICIAN ENGINEER

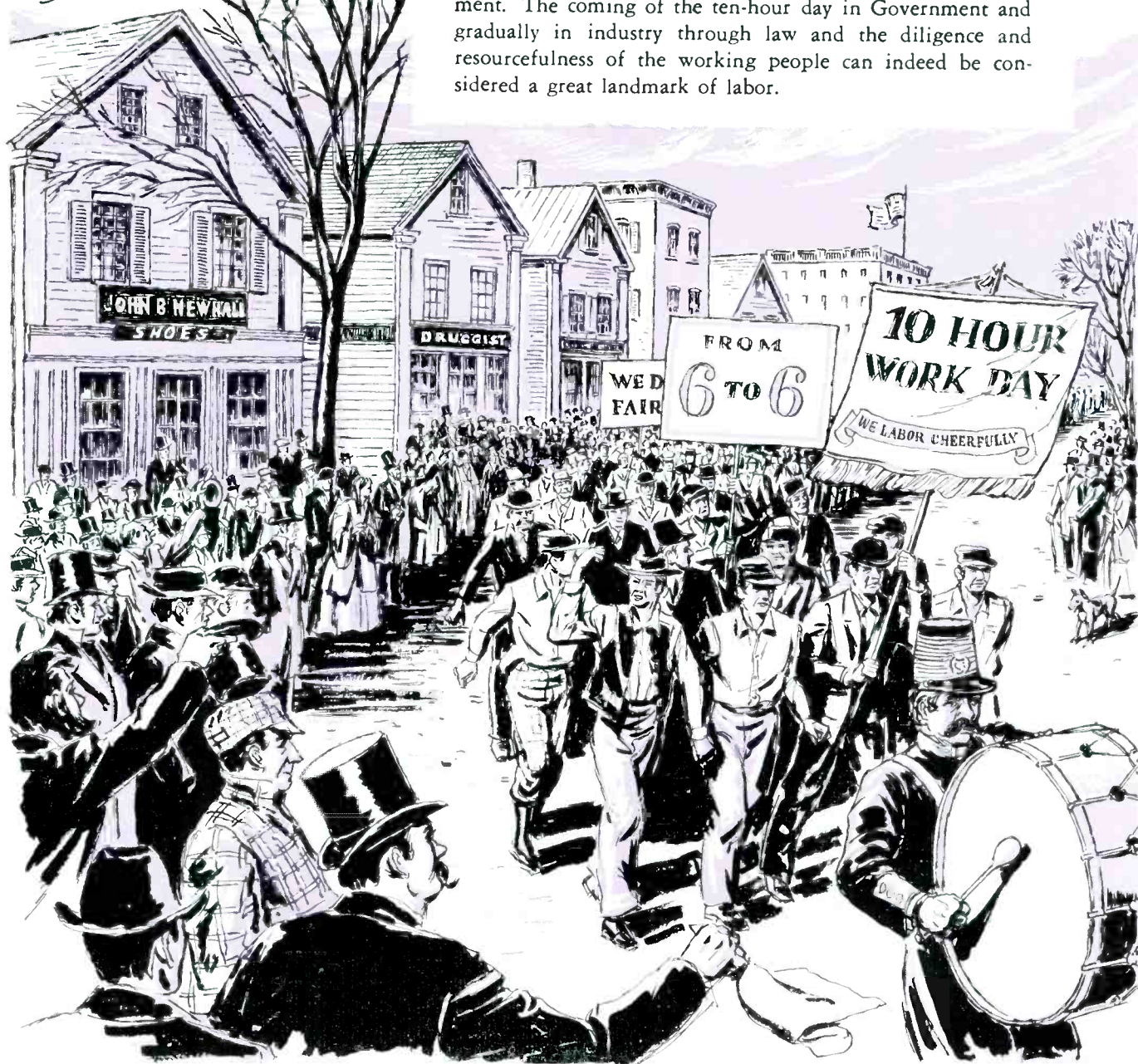
JUNE-JULY, 1959

Published for the Employees of the Broadcasting, Recording and Related Industries

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS — AFL-CIO

THE TEN-HOUR DAY

The ten-hour work day may not seem like a notable advance to unions today, but 125 years ago the shorter work day agitation of laboring people was considered radical. In the 1830's workers' demonstrations began calling for a working day of not more than ten hours. Parades were held and banners proclaimed demands for a day "From 6 to 6" (with time out for meals presumably) and mass meetings and strikes emphasized the working people's demands. President Martin Van Buren, heeding labor's desires, in 1840 issued an order limiting the work day on Government public works to ten hours. In 1847 New Hampshire was the first state to enact a ten-hour law. The statute said that "... no person shall be required ... to perform more than ten hours' labor in one day, except in pursuance of an express contract requiring greater time." The "express contract" proviso was a loophole which permitted abuse, but actually getting onto the books a statute was a real achievement. The coming of the ten-hour day in Government and gradually in industry through law and the diligence and resourcefulness of the working people can indeed be considered a great landmark of labor.



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TECHNICIAN-ENGINEER

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The INTERNATIONAL BROTHERHOOD of ELECTRICAL WORKERS

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... the cover

The Annual Progress Meeting of IBEW members in broadcasting, recording, and related industries was held in St. Louis, Mo., June 12, 13, and 14. Many local unions were represented at this annual gathering, and delegates covered a wide range of subjects in floor discussions. A highlight of the meeting was the talk by IBEW General Counsel Louis Sherman on legal problems and current legislation. Brother Sherman is shown at the speaker's rostrum at the center right of our June-July cover. (We shall publish the text of his talk in the August issue.)

commentary

The Eisenhower Administration's approach to health care for the aged has an Alice-in-Wonderland tinge to its insistence on "individual initiative" and "thrift" by older persons who cannot afford the cost of medical care.

The House hearings on the Forand bill revealed agreement on the basic problem.

The nation's 15 million persons aged 65 and over are growing by 1,000 a day. Three-fifths of them have less than \$1,000 a year income. They need much more medical care than other people. To get it, many are forced to go on relief.

Forand bill opponents argue that federal action would halt the sale of private insurance for the aged, something the aged can't afford anyhow, and would curtail their freedom of choosing doctors, also something they can't afford.

Organized labor and other supporters of the Forand bill have an answer: the aged need health care now and the people who will finance the federal program as workers and consumers are willing to pay for it.

—THE AFL-CIO NEWS.

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 1958 figures:

April, 1959—123.9; April, 1958—123.5

May, 1959—124.0; May, 1958—123.7



Walter L. Reed of Local 1259, Kansas City, Mo., discusses the desirability of fulltime business managers.

ANNUAL DIVISION PROGRESS MEETING

THE Eighth Annual National Progress Meeting was convened at the Sheraton Jefferson Hotel in St. Louis, Missouri, on June 12, 13 and 14. The opening welcoming remarks by Business Manager Ralph A. Barnett served as a prelude to a very enjoyable meeting, thanks to the members and officers of Local Union No. 4.

The first day was occupied by a discussion of common problems, a question and answer period and an address by Mr. Howard Meighan (reported at length elsewhere in this issue). Due to a last-minute change in plans, Vice President Frank Jacobs was rather unexpectedly able to be present and he extended the greetings of his District and introduced International Representatives Carl Mitchell and Elmer Kelly.

Saturday morning was taken up with a lengthy discussion of the business organization of Local Units and various Business Managers proffered advice based upon the experience of their local unions. Among them were Ed Bird of Local Union 202, Jim Wilkerson of Local Union 715 and Walter Reed of Local Union 1259.

Saturday afternoon was devoted entirely to remarks

by the General Counsel of the IBEW, Louis Sherman. Mr. Sherman spoke at length on the subject of current and pending labor legislation. (His remarks will be quoted at length in the next issue of this magazine.)

At 4:00 p. m., the meeting was adjourned for a very festive social occasion, as the delegates and wives were guests of Local Union 4. Following the dinner hour, those interested were the guests of the Local Union at the St. Louis Municipal Opera where "The King and I" was presented in the lavish Amphitheatre in Forrest Park.

Sunday morning marked the beginning of a long, interesting and undoubtedly worthwhile session on legal problems, Labor Board decisions, court decisions and the like: "Judge" Sherman presiding. The late Sunday afternoon hours were given to individual and group discussions.

A resolution was presented at the conclusion of the Meeting, expressing the thanks and appreciation of the delegates to Local Union 4 for its gracious hospitality.

Next year—Colorado Springs, Colorado, at the joint invitation of Local Unions 12 and 113—in August.



Edward J. Bird, business manager of Local 202, San Francisco, enters the discussion.

Tape Production Official Sees Brotherhood on the Threshold of Expansion

Howard S. Meighan, president of Videotape Productions of New York, Inc., was a guest speaker at our annual progress meeting in St. Louis. On this and the following pages are highlights of his remarks to the delegates.

FELLOWS, I feel that I should be sitting down there with you. I more often feel like an employee than an employer. I have been in broadcasting for 30 years—since 1929. I started the first radio department for J. Walter Thompson many years ago. I said once that I feel this about broadcasting—it's like the first time I ever kissed a girl, I really don't remember much about the details—but it just opened up a whole new wonderful world. That's really been my feeling about broadcasting—it has just been a heck of a lot of fun. I was a manager, I worked for CBS, where I was for 23 years—I was for a time the manager of the Columbia-owned stations and then up on the top deck of CBS and, needless to say, I got to know IBEW pretty well. I have very healthy respect for IBEW and I'm not saying that to be polite—that respect is at least up to the time when it is strike time, then I'm not so sure. (Laughter)

I think the reason I developed that respect, aside from the people that I met, was because of the scholarships that IBEW has at Columbia University. I'm a Columbia University person, and I'm interested in scholarships. It has pleased me that a union would do that. And then within the last half a dozen months, you remember this better than I—I noticed some university studies with some IBEW people in New York—the picture in the New York Times. That kind of earned my respect, too. It earned my respect because as labor becomes more and more important in this country, organized labor, of course, their responsibilities become heavier. And I can tell you as a management man, it takes a lot to assume responsibilities—it takes a man with a good head—I don't care whether it is on the management side or on the labor side. And labor has a real responsibility to have a good head in times like this when they are moving out into areas of importance and when people go to school and are fired with an intellectual stimulus, I think that is as it should be.

Forgetting the employer-employee relationship, actually we're partners and this is literally true. I sought out IBEW before I made any comments about leaving CBS. As a matter of fact, Al was one of the first I talked to about it—I mentioned that I was going out in association with Ampex to develop videotape and we sat down on the basis that it made a lot of sense for IBEW to be in tape but on what basis nobody really knew, so we worked out a contract and as far as I know it is a swell contract. We have changed it slightly—it was suggested by some people that minor changes be made one way or another. I look on us really not as employer-employee, but as partners. I've come here really today on that basis, and one of the things about a partnership, like a partnership in marriage, is that there are times when you are frank—and candor is a mighty important thing. I'm going to say some things to you today that maybe you won't like, but I wouldn't say them to you if I didn't think we are all friends, and we weren't here for the purpose of getting down to cold turkey. In a way we should both benefit by this visit—I'm going to chin for a little while and then we will have some questions and answers and I hope to benefit by what's in your mind in terms of questions.

It just hasn't been a part of my experience—I really haven't

Howard Meighan Addresses Meeting



sat on the side where you are sitting. The kind of language I use may be foreign to you. I don't mean it to be. I feel something like the fellow who was trying to describe gingerale to somebody who had never tasted it and he found it almost impossible to describe it. He said, "Well, I tell you what, it tastes like your foot feels when it is asleep." So if I use some strange language, it is just my way of talking.

I believe that IBEW is still on the threshold of an enormous expansion in an extremely important field. Millions of minutes of program time in television which are needed for television advertising can be manufactured and distributed largely by IBEW and I mean on a world-wide basis, not just on a domestic basis. Many of these minutes which are now on film—and they are predominantly on film—most of them will be on tape. Many of the minutes that are now on television live will be on tape. Many of the lines in newspaper advertising will be on television—and on tape. And many of the lines of advertising in magazines will be on television—and on tape. There will be more population, there will be more leisure time, there will be many, many more minutes for people to watch television, there will be more goods and services to sell to the many more people and there will be more television stations to sell them and perhaps even more networks. IBEW is right on the threshold of all this and this is just as practical and factual as anything I could say, however simple it seems. If you think the jet age of transportation is big, your age of communication is even bigger on a world-wide basis and if you think that chemistry and the whole synthesis of natural things that are being made into cloth, all kinds of plastics, you think those are big, you haven't seen anything until you have seen how the world of communication is growing around the world. Let us just say parenthetically, I'm on the Voice of America board and I'm chairman of the committee advising the U. S. Information Agency on television. Believe me, television has grown around the world in leaps and bounds and it depends on America, just as theatres around the world depend on American products in terms of thousand of minutes, television stations around the world will depend on things coming from America in terms of millions of minutes. What I am saying to you is just cold turkey—this is provided you have the intellect in your organization to understand it, grasp this point and to prepare for it and to understand it in its largeness, not in terms of its smallness in this or that locality. And you can make mistakes if you don't understand that. You must understand the whole world and universe in which this field of communications and the interest of people about things and about each other. This is why they send up missiles with monkeys in them and with sea urchin eggs, with all kinds of things because

people are probing to find out what happens in this future in order that when they do want to send people up, or ballistic missiles or whatever, they can calculate it in advance. This is the thing that you have got to do. Lots of people have been very big and made mistakes and fallen by the wayside.

Years ago I was sent out to Hollywood to try to figure out what was going to be the relationship between movies and television. MGM had made us an offer. They said, you figure out how much money you've spent in television, we'll match it with cash and we'll set up a CBS-MGM or an MGM-CBS television business that will be the greatest in the world. We'll continue our movie business, you continue your radio business and maybe we'll even get together on the record business which is important to you and not with us. I came up with the conclusion that while television was like the movies, it was unlike it in a lot of ways and it was like radio—shipped out in the homes, supported by advertising, but it was unlike it in many ways. It was like the legitimate theatre, required a memory which neither the movies nor the radio required. When you look at the dissimilarities, we came to the conclusion it was a fourth and different kind of thing. And that is how Television City was born and later, Burbank. We hope that wasn't a mistake and it looks as though it isn't.

The newspapers can't compete, one of the reasons they can't compete in television as well now is because it costs too much to make and to manufacture and distribute it. Look at movies, just in a dreadful state. One of my closest friends is John Wayne, very successful fellow in the movies. He doesn't make movies in Hollywood, nor does Bill Holden, another big one. Wayne's last movie was in Japan, before that it was in Africa, one in Rome, one in Hawaii, down in Little Egypt—they don't make them in Hollywood, they can't afford to make movies there.

Management can make mistakes as well as labor, and I have told you this is going to be a candid conversation, let me tell you about an experience of mine with film. Bill Lodge and I sat down about 10 years ago with some key film manufacturing people in a bargaining room in New York. We told them there were going to be miles, and miles and miles of film used for minutes and minutes of television, because television could not rate on a live basis, we had to be able to make it at one time and distribute at another. For Heaven's sake, we said, make a film for television. What kind of a film? Well, number one, it should have a 30 frame speed, because the natural characteristic of alternating current is 60 cycles, everything is triggered in multiples or divisions of 60 and a 30 frame speed was a natural speed of television and a 24 frame speed just didn't make any sense at all. Then, furthermore, we said you can't have a decent sound track on 16 mm. film, for the kind of sound that we pipe around the country with radio. The picture on 16 mm. is probably good enough so we suggested a film that might be 23 mm. wide, have a much longer and wider sound track and especially and tailor-made for television. We said there would be millions of minutes of television, thousands and thousands of miles. You wouldn't believe what they said. They said you don't understand, we only make film 8 mm., 16 mm. and 35 mm. wide and I said No, you don't and they said, Yes, we do. And I said, of course, you don't. Well, they said, Mr. Meighan really we should certainly know how we make film. Well, I said, let me ask you something. You make film as big wide sheets, don't you, and you slit it to any size you want? And they now have such film—70 mm., 65 mm., etc. They



Delegates listening to Mr. Meighan's talk.

missed the boat and the film business as far as kinescope is concerned is practically obsolete. Now it happens that this film company has grown so tremendously into plastics and chemistry that it really doesn't make any difference, their entire film business of all kinds only amounts to 9 per cent—that's a whole lot of money, but then they really don't care if it drifts off. And the people have grown old and they retired and have written of their mistakes. Management makes mistakes, labor makes mistakes.

Here you are on the threshold, in my opinion, of an enormous growth in a business which is just naturally yours, provided you use the judgment to understand it and you don't make too many mistakes. I want to now talk to you about advertising because advertising is the thing that supports IBEW in the broadcasting business. Not a single thing else, just advertising. Television is an important part of advertising. I want to mention it to you in terms of tape in television and then tell you something about the tape system. I got this idea of talking about advertising from something that Al has told me about. I didn't remember that he had ever heard the stories. You know advertising is thought of as advertising agencies, as hucksters, the man in the grey flannel suit and, by and large, not with a great deal of respect. But the fact of the matter is that advertising deserves quite a bit of respect. I want to tell you two or three little stories that are rather interesting to try to make a point, because this is where your dough comes from, the kind of people I'm talking about.

Many years ago, a man named Thompson was selling magazine space. Among the magazines he sold was Goody's Ladies' Book and Peterson magazine which were the forerunners of the Ladies' Home Journal and the Woman's Home Companion. He had it pretty tough selling this space, in these, the very early days of advertising. He ran into a man named Johns who was having a dickens of a time getting door-to-door salesmen for some new product he had, a kind of asphalt shingle. Mr. Thompson said to him, "What you ought to do is advertise in these ladies' books, because the woman is the first to come up with the idea that her husband should apply for this kind of job." So he advertised in them and was enormously successful. It was the way in which, later, Johns Manville built his business, by picking up men through women's magazines and the man who had that sage idea was a man named J. Walter Thompson, who later founded what is to this day the biggest advertising agency in the world. It was based on a very sensible idea.

Let me tell you another little story. A fellow named Bill Estes who was top man for J. Walter Thompson for many years and handled the Lever Brothers account, Lux. He was a great student of advertising and was very impressed one time by one of the standard 11-week campaigns that George Washington Hill of Lucky Strike used to run. He used to run these 11-week campaigns—"Reach for a Lucky instead of a sweet" and "Nature in the raw is seldom mild." He would run it for eleven weeks, save money for two weeks, come back with another smasher. He ran one on opera stars, great singers smoking Lucky Strikes; ran it for 11 weeks, dropped it. Bill Estes saw it and thought this fellow had dropped a basically good idea, so a few years later he picked up that idea in a different way. The basic idea was, of course, that if an opera star whose fortune is in his throat would risk his throat to smoke Lucky Strikes, then Lucky Strikes must be mild. What Bill did was, he turned around and said if movie stars whose complexion or their face is their fortune, if we can get them to wash their face in Lux soap then we really have something. He picked a crew of people and went out to Hollywood, got Louella Parsons in on this thing, Jimmy Courtney, publisher of Photoplay, the Hearst people, Variety magazine, etc. The first thing you know every star had Lux in their homes. All their dressing rooms had Lux soap. Nobody knew where it came from but it was the easiest piece of soap to reach for, so the first thing you know, everybody was using Lux soap. Well, I don't want to go through all the lurid details of this, but finally when they can down to a point of going around and asking the stars what kind of soap they used, they said they used Lux soap. They didn't use it for any other reason but the fact that it was always there. So Bill Estes started a campaign and the campaign was based on the very

sensible idea that if the movie stars use Lux soap instead of this or that expensive oil or cream, etc., you got something.

Another little story: There was a 25-year-old fellow who worked as a copywriter for Thompson and he had a bright idea about Eastman Kodak. I'm a little older than a lot of you fellows, most of you. I can remember going through New England in the old days when they had little signs, like Burma Shave signs, that said—Picture ahead, Kodak as you go. The standard picture of a tourist was always with a strap around his shoulder and a Kodak in a leather case. All Kodak advertising was illustrated with pictures of places and this young fellow went to Kodak with the idea that the only way you'd ever build a volume with the business was to take pictures that would be of interest to more people than just the person who took the picture. In other words, take pictures of people, take pictures of families, take pictures of little kids when they are in school, when they get married, when they have children and all the events. This got the account by the way to J. Walter Thompson and they have it to this day, and I'd say that was nearly 30 years—because of this fundamentally sound idea. These are the people that make advertising—not the hucksters in the grey flannel suits, the fellows on Madison Avenue that are talked about, usually in an uncomplimentary way.

Let me tell you another story—and this is the story that Al asked me to tell you. Some years ago two companies had a problem—they were in the same business—and they developed a patentable process. They went to the Patent Office, oddly enough, on the same day with the same idea. At that time, the Patent Office did not mark hours of registrations, only the day. So here was the dilemma; the first thing the Patent Office did while not mentioning it to either one, was to make a thorough investigation to see if by any chance one had stolen the idea from the other and came to the conclusion that they hadn't—it was a happenstance. Each was faced with the same problem, each had dug away at the thing and had come up with the same answer. So the Patent Office urged them to get together and merge their interest and disclosed to both that each had the same idea recorded on the same day. Instead of merging the patents, they merged the companies and they started to go with this patent, when all of a sudden an advertising man came along and said, "Wait a minute, fellows, you don't have just the solution to what was a bad problem, you have a whole brand new idea and let me show you how to work the idea." And the story: The problem was the Kraft Cheese Company and the Phoenix Cheese Company and the problem with cheese was in the days when you and I were younger. The outstanding thing in the back of the grocery store was a big double refrigerator. On one side there was a big cheddar of cheese and on the other side was a tub of butter and this was a standard picture in the back of every grocery store. I can well remember the grocer who would be able to cut the pound of butter and put it on the weighing machine on the counter and hardly miss an ounce—or ditto with cheese. The problem with cheese was that the longer the cheese stayed the drier it got and finally they couldn't sell the last few pounds. As a result there was a great deal of wasted cheese because of spoilage or if it was handled in a different way it would be moldy. So, each of these two companies went at the problem of how to stop this bacteria in the first place—anyway they pasteurized the cheese and that was the basic invention. But all they were then going to do was to pasteurize the cheese so it wouldn't spoil, they were going to make it in the same molds that they had before and sell it in the same old way. Then the advertising man came along and told them—"In the first place, we have a survey and we have found that most people buy cheese to put into sandwiches. You can mold this now anyway you want to when it is soft after it has been pasteurized, so you mold it in a brick, so that you can cut a slice and it fits right on a piece of bread. This revolutionized the cheese business!

The next study they made showed that 'most everybody bought cheese a pound at a time and that's where the pound package came from. Let me tell you what happened as a result of that. The butter people found out and, the butter people went to pound packages and quarter-pound packages. First one half of the refrigerator in the back of the store was gone—not needed anymore and then the other half. And then this thing that was

as standard as the ticket window in a railroad station disappeared and so did the weighing machine, because everybody started to package. The cracker people put crackers in boxes, prunes and coffee came out of bags. Packaging was a major revolution in merchandising—it saved waste, everything packed better, handled better and the consumer bought more—all because an advertising man had a basic idea about selling and merchandising.

I mention all this to you because if I can only affect a half-dozen of you fellows in this room and have you sold on the fact that if you are really going to serve IBEW, your brothers in the Brotherhood, those that depend on you, the people you work for, study and learn something about advertising. Not the flashy side of advertising but the basic economics of advertising because the basic economics of advertising is really what keeps IBEW going. I thoroughly believe that railroad brotherhoods never studied railroad transportation, they just thought they had it made. I can hardly recall having met a real newspaper man, whether he is a reporter or a publisher, who thought of himself as a communications man understanding all forms of communication—all he knew about was newspapers. Now you people, if all you want to know about is being technicians or how to make this or that beam and you don't understand as a Brotherhood the thing that really is paying off, mainly advertising, somewhere along the line you make a tragic mistake. I urge that on you and that is the reason I wanted to take this moment or two to suggest that you think about it.

Now, let's talk about the place of advertising in television. Newspapers, of course, moved from being gazettes and then became the only form of communication the people used for advertising and advertising made newspapers. Newspapers were very dull things until the advertising people came along and created new type faces, created engravings of a higher and higher type to illustrate products. The same thing was true in magazines, the same thing was true with radio. Radio was a great technical device, Marconi invented it; DeForest made radio a much more practical thing. Sarnoff made radio something that went into the home and had a real meaning in the public life, but the thing that really made radio was the Cliquot Club Eskimos, the A&P Gypsies, on down through Ed Wynn and the Fire Chief, the Rudy Vallee Hour, the Chase and Sanborn shows—those are the things that made radio. I don't know how many people are involved in having made television possible in terms of the technical end of it but there is no question that the things that have made television really possible include the Berle show, Red Skelton for Tide, "I Love Lucy" for Phillip Morris, etc., etc., etc. Now, right now, television is the best medium used, all things considered and speaking in a general sense. This is true locally in most places, it is true nationally in most instances but the costs of television are getting to the point where, if it weren't for the high economy that we are in now, there would be very serious cutbacks in television. I have no idea how much, I wouldn't be able to guess how much, but certainly a great deal. And certainly if there was that cutback it would just knock off Hollywood and all the people who are making films for television now, which is where all the employment has been soaked up now that feature films have gone out. The reason, of course, for television is that it has the picture, it has the words told you as one person would tell to another, it has movement—these are the three things other than touch and taste or smell that you could contribute in bringing somebody close to something.

Here is a factor that I want you to bear in mind—there are two areas of cost in television; one is the above the line cost, the other is the below the line cost. You understand the meaning of those things. Tape and your area, with or without tape, is the below the line area. That really isn't the thing that makes television, the thing that makes television is the above the line and never forget that because television has got to be able over a period of time to afford writers, producers, directors and actors. But, by and large, those fellows have a very unstable type of job—they are up making a lot of money this year and almost none next year. You fellows have the greatest of ability in your employment—you make this possible—but the other fellows are the ones who will always be paid high and while you'll find from time to time you get jealous of them, but the

fact is that that is the stuff that brings the audience and the large circulation that makes television pay off. So of all the things that you study and think about, do think about that fact that below the line should be an *even* kind of a business that makes the whole system worthwhile, but above the line is where the real magnetism comes into television and makes it go.

It's amazing how many millions of minutes there are of covered product television. A station like WCBS in New York, for example, is on the air about 1200 minutes a day, that's about a half-million minutes a year—and that's just one of seven stations in New York. A lot of that product is repeat product and a lot of it is original product, a lot of it is film and a lot of it is live—and more and more of it is taped. The largest part of it is on film right now. Film costs like the dickens but here is where you have to appraise film and tape. You have to separate the manufacturing process for production and the distribution process, either the broadcasting or shipping the stuff. Tape is cheaper as a manufactured process, it is much more expensive in distribution. Film is much more expensive to manufacture, it is cheaper in the distribution process. There is a lot of publicity about tape and it is growing like the dickens but when you analyze where it is growing, it is growing only where the manufacturing process is important; network use for delayed broadcast or to be able to record one day to play some other time, where you are going to distribute via a normal distribution system and network lines. It is also growing on this station or that station, where the station will record and play back the thing during the day. But there is no cross-use to speak of, because the distribution of the thing is too high. Sure there is a lot of publicity about KTTV in Hollywood and WNTA in New York in syndicated material, like Bishop Sheen, etc. This is nothing. The only reasons for this is that these two stations are putting these programs on anywhere, they are recording because it doesn't cost them very much to do it and trying to get their money back by having some other station pay for it. But none of the big syndicate operators—MCA with its revue productions with an enormous budget have film but have not touched the tape yet; they haven't made up their mind yet. Jack Wrather, a very bold, imaginative Texan who is just moving his stuff on a world-wide basis hasn't touched the tape yet because the distribution cost is so high. Part of the distribution cost is just the high cost of tape—that will come down. Minnesota Mining has said that it will be down within a year or two to about 50 per cent of what it is now, but it is still a big "hunk of stuff." Actually, what's happened is that there is this very great slowness in interchange of tape. One of the things that tape needs to get going is more stations equipped to use tape. I think there is now about 72 per cent of the total television population in this country that can be reached by stations that are tape equipped. Of course, 100 per cent can be reached by the networks. But this is kind of a phony figure. But let's take St. Louis, for example, channel 11 has a tape machine. They have two of them, I understand one of them is up in a window at the Park Plaza, I don't know why they don't use it. But KMOX doesn't have one and KMOX is a very important station in town. So you can say that this population of the St. Louis area is reached by tape equipped stations but a smart advertising man will look at it and say, "Yes, but I want to spot half the 'I Love Lucy' Westinghouse program on Monday night and they can't handle this tape on KMOX." So I want to say this to you, if tape is going to be what I think it is, it is in your best interest to understand this and also to see that tape is talked up because this is your baby. Wherever you have a chance to do it, talk it up.

Now let me talk to you about Videotape. I'm going to depend on questions and answers from you for more technical things than I'm going to bother with here. When Minnesota Mining and Ampex and I put together the Videotape Center in New York, we did it for this reason. As I mentioned to you a little earlier, the thing that made newspapers and magazines and radio and television great was when advertising people got in and insisted that magazines had their place but that radio would do a better job, etc. So we set this thing up in the heart of New York and it cost us like crazy. What we wanted

to do was to have during this first year or so 100 or more of the bright guys in advertising agencies come in and try tape—make damned fool mistakes, create bright ideas, push us to do things that just can't be done and we just had to learn how to do it. Rather than our having a production staff of our own, what kind of a production staff really nobody knows, at least enough about tape. But if we had 100 people come through the place, we'd find two or three bright fellows and possibly hire them if we could afford them but at least we would see that they would be influential in the business. That's the theory and the philosophy back of Videotape Productions. It is working out that way. We find, for example, that BBD&O comes in with U. S. Steel. There is an ad in *Sponsor* magazine, by the way, Monday's issue coming, which will be wrapped, that is the entire magazine will be wrapped in tape and on the inside cover, on the first page there is an ad that we are putting in there and there is an illustration of this U. S. Steel commercial.

They came in and we made a bid on the job, story bought so to speak and we figured that it could be done in a day of set up and shooting, but we didn't figure that it would turn out to be a production like a feature movie. It took 51 takes, took them until 2:00 in the morning and despite the fact that we had to pay all the IBEW fellows and the stagehands—all overtime, of course—we couldn't collect any more. But we learned and we learned the hard way. On the other hand, there is a big agency. They just talked as though they know all about tape; they have eleven producers, one producer produces tape, the other 10 don't. That one fellow is a cracker-jack. He comes in every other Friday to do the Nabisco stuff and he is out by 2:30 in the afternoon. They are learning something about tape and it is a very tough thing. Actually, I was asked recently by an old friend and long-time associate how things were going along and I said, "In some respects it is like our early days with CBS color. Peter Goldmark never could catch up practically with the publicity of the color. There was more publicity about that thing but to make it work Peter had to have 43 fellows in the back, he had to have his hand in here and a mike up here and that's the way we made it." Tape is like that in many respects, it works beautifully in the networks, it works beautifully in the stations and it is a wonderful situation but as a business, it has a ways to go yet. But it is a damned important thing.

Now as the result of experience that Ampex has had, there are over a 100 of these machines that are abroad in 8 foreign countries and working fine. This is very interesting because it is difficult to service equipment abroad and if it didn't work well, we wouldn't make that kind of foreign sales. The networks are just going like crazy and the stations are coming along on the thing too, but you learn. Now we have the second edition. The first one was developed, I think, from 13 prototypes and then they made the A model. Now they have just come out with the 1000-B. It is, I would say, as good as a model that has had a year of experience, many millions of dollars of experience . . . this new machine represents very substantial improvements—what they are are better stated in the material you have before you. There are a couple of things about it that I can mention. One of the problems of tape, unlike film, is the printing of duplicates. We have no way yet of printing the way we do film, this is one of the problems in the cost of distribution, assuming that you would manufacture the negative—it would just have to be end on end duplication—there is no way of printing through as far as anybody knows. Furthermore, one of the problems is the signal to noise ratio that gets to a point that the second or third generation that you are fooling around with often tends to get pretty muddy. Now, it happens that a network rarely uses a second or third generation so it's fine, they use the first generation. A station which records local used car dealer commercials or a local program rarely uses second or third generation, so it's fine. But to make the whole business grow we just have had to find a way to beat the noise problem. In the guaranteed performance you will note it says there is a 36 DB ratio. While this is the guarantee, what they are actually turning out in the 1000-B's is a performance of 46 DB,

and apparently they are able to make generation after generation after generation, they are now getting 7, 8 to 10 generations without any appreciable degradation. This will open up a whole new area of usefulness for tape. For example, we now use as sources of information for recording stuff that you pick up with a live camera. Well, once you can also use as source of information stuff that was pre-recorded so that what then gets on the tape is a second generation compared to the live first generation doesn't show any difference, then you really have something. Now particularly if you can pre-record second and third generations and blend in the first generations, the way you do in the moving picture business, then we are able to assemble the kind of miscellaneous material from outdoors and indoors, etc. that will make the system great. This is the thing that I think is coming.

Mobile equipment is now coming into being all over the lot. Frankly, our company hasn't gone into mobile equipment and I'll tell you one of the basic reasons. I don't know how it is going to pay off. You can send a camera crew out, that is, a film camera crew, of two or three people in a truck at a relatively minor investment involved and a relatively minor investment in people even though they may have a higher per diem rate of pay, let's say than an IB technician. I don't know how they are going to pay off because of the necessity of having a large crew go along to make it operate. What a television camera can do out of doors is just phenomenal, but I don't know how it will work out as a matter of economics to move the big investment that is involved—these 1000-B's cost \$52,000 each and you really need two and you need, say, three cameras at about \$15,000 each and you need a switcher and you need something to carry the wheels, etc. etc.—you really start to talk about money—and you can't sit around idle very much with that. However, these things are all parts of the future.

Now, there are two things that I want to tell you about that are new that I think will all of a sudden make this whole thing go like crazy and I think this is where IBEW is at the threshold, because right now you can still talk about film and tape and have a good argument either way, but what is coming into being almost immediately are new cameras—4½" tube cameras compared with the 3" 10's. I'm referring now to cameras known as Marconi Mark IV's. They tell me it is like the difference between a magazine picture and a newspaper picture. The difference you can get on a 2 pi R² basis, there is just about twice the area that you get and thus about twice as much opportunity to reach out for light with this camera. I think within the next couple of weeks there will be a very unusual announcement about Marconi coming into this country with these things and this will just open up the television business enormously and it will make the difference between a television picture taken by a 4½" camera and movie film on TV—it will be really noticeable—almost like day and night. This will, I think make advertising reach for quality, reach over into the field of television and tape.

There is one other new development that's coming and this we're just starting in on. That has to do with lighting. Lighting has been nothing more than Kleig lights or variations of them for years—they are really antique. We of Videotape Productions have hit on something that just seems so striking that we can hardly believe it and it looks as though it is going to come out fine—but I don't know whether it will or not. But there is a man in New York who is both an artist and a scientist—and he is an artist and a scientist about light. He has just come to the conclusion or he has had this conclusion a year or less than 2 or 3 years, that using more and more of the same kind of lights make no sense whatsoever, whether you are lighting a building or Idlewild airport or the Metropolitan Museum, or whatever. He has devised brand new original sources of light. You can study something about this—not about this man—but there was an article in the Scientific American for May by Land, the Polaroid man which dissects light in terms of its frequencies and there is another article in Fortune and it may also be by Land—I have missed the Fortune

Progress Meeting Speaker



Jim Wilkerson, business manager of Local 715, Milwaukee, Wis., and vicinity, participated in discussion of local union operation.

article. Land, who studies for Polaroid, is a scientist in the field of light but this particular man in New York is starting in a series of developments in the Videotape center and we hope to hook together the VR 1000—B's, the new Marconi cameras and the new sources of light which are just dissected as to their frequency characteristic and their refractionability so that the whole is a continuous thing and the scientists—the people they talked with say this is going to make the film business go right out as far as television is concerned.

This is fairly up to date except for getting into technical aspects. I want to summarize by saying to you that this is your world as I see it and I see it with a heck of a lot of enthusiasm for you if there is the intellectual capacity in the IBEW to grasp it and be motivated by it on an overall national level. And if you do, I think there are all kinds of things that will open up; the world is your oyster, on a worldwide basis. I think that tape is a key to that because it is a system of being able to separate the time of manufacturing something and the time of delivering it. Only electricity, except for live television, needs to be manufactured and delivered at the same time; you can't store it. With tape you can store it in its form and the ability to store and use television is important. I guess you fellows might think that I think of video tape as being as precious as a jewel brought over the Himalayas in the navel of a Mongolian princess—that's exactly the way I feel about it—it is just terrific and it is terrific to you!! Thank you very much for this opportunity to talk to you.

IBEW Opposes Proposed Operator Licensing Changes

Support of S. 1886 Indicated by International Office Spokesman

AT the specific request of the Federal Communications Commissions a bill was recently introduced in the U. S. Senate which proposed amendment of the Communications Act of 1934. As one of a series, S. 1741 proposed that the FCC be given blanket discretion to waive or modify operator licensing requirements in the case of "stations engaged in broadcasting." Section 318 of the Act presently precludes such authority of the Commission, and the FCC initially explained that their motive for the amendment was to afford relief to stations engaged only in "re-broadcasting." In a letter of explanation, the Commission went on to say that this measure of relief was contemplated as a necessity to operation of "transmitters engaged solely in rebroadcasting, such as the so-called boosters in smaller communities in mountainous terrain, especially out west." When queried in more detail about their proposal, however, the FCC actually envisioned relaxation of the explicit requirements of the Act in any and all cases, at its administrative discretion.

International President Gordon Freeman wrote Senator Warren Magnuson, chairman of the Interstate and Foreign Commerce Committee, and Senator John Pastore, chairman of the Subcommittee on Communications, and registered the strong objections of the IBEW to affording the FCC such a wide latitude as was encompassed by the bill.

On July 14, the subcommittee heard testimony on this particular bill as a part of the statement of Mr. Harold Fellows, president of the National Association of Broadcasters. Mr. Fellows' reference to S. 1741 was a part of his statement on the general subject of CATV systems, and he said: "We would agree with the Commission that it should have discretionary authority in its rules relating to the necessity of licensed operators for all classes of broadcasting stations. There is no question but that in the present advanced stage of the electronics art it is entirely feasible to have unattended operation of broadcasting stations."

From this it can be seen that from the relatively innocent beginning—a public-spirited effort to afford isolated communities an opportunity to enjoy television—suddenly any of all stations might be exempted by the Commission, at its sole discretion, AM, FM and TV. Not being at all content to see this go unchallenged, the subcommittee was requested to hear what the IBEW had to say. Accordingly, on July 15th, Representative Albert O. Hardy of the Radio, Television and Recording Division of the Brotherhood, appeared before the Com-

munications Subcommittee and made the following statement (digested here for the sake of brevity):

"As members of this trade union we believe that we have a legitimate concern for the maintenance of the highest possible standards for technicians and engineers in the industry. The licensing requirements of the statute have assisted in developing and maintaining these standards. We are, therefore, opposed to the proposal in S. 1741 which would rest a power in the Federal Communications Commission so broad as to permit the complete elimination of the licensing requirements. Additionally, the professional pride of our members precludes our silence. The licensing requirements which now exist are a very tangible part of the high standards of technical quality which are taken for granted by the American public.

"We believe that our position is not only of concern to ourselves but also is in the public interest. The maintenance of the highest technical standards possible is necessary for the benefit of the listening and viewing public.

"The annual reports of the Federal Communications Commission speak for themselves. The Commission is patently unable to police the radio and television spectrum to the degree originally envisioned when the Federal Radio Commission was established and when the Field Engineering and Monitoring Service later came into being. We submit that even if this activity of the Commission was afforded a large budget and correspondingly large increases in personnel, the inspection and examination of all existing stations would continue to be impractical and impossible. Therefore, policing of the spectrum must necessarily be less effective than the day-to-day supervision of such stations by licensed operators. The most advantageous system of safeguarding technical standards is also the most economic to the public—licensed operators whose technical competence has been certified by the FCC through comprehensive and thorough examination. Happily, this situation already exists—no new funds, no additional appropriations and no new legislation is needed to accomplish this end. A present provision of the Communications Act requires licensed operators at "all stations engaged in broadcasting." Also, Rules and Regulations of the Commission require a relatively high level of competence to be demonstrated by operators whose licenses are valid for the operations of television transmitters. Therefore, our primary proposal to you envisions nothing new; existing law is adequate.

"In proceedings before the Commission in Docket No. 11677 in 1956 and 1957 the Commission itself recognized the principles involved here with respect to radio station operation. This prolonged rule making proceeding produced the conclusion by the Commission that stations operating with directional antennae and/or power in excess of 10,000 watts required an operator holding a Radiotelephone First Class Operator's license. A television station actually consists of two separate transmitters—an AM transmitter for picture transmission and an FM transmitter for the transmission of the sound accompanying the picture. Only in very rare cases, such as so-called "booster" and "translator" stations, is the power of a television transmitter less than 10,000 watts. Indeed, stations in metropolitan areas are quite commonly of 100,000 watts power on the lower channels and 316,000 watts on the higher channels. We submit that recognition of this basic principle by the Commission should be taken into account in the formulation of new legislation by the Congress.

"We are aware of the proposed amendment to the Communications Act which has been submitted by Senator Moss as S. 1886. Senator Moss and Senator Murray have jointly proposed that the Commission be afforded the authority to waive or modify the provisions of Section 318 in the case of "(3) stations engaged in broadcasting except those engaged solely in the function of rebroadcasting the signals of television broadcast stations. . . ." It is our understanding that this amendment would not give unfettered discretion to the Federal Communications Commission to junk the present licensing requirements of the statute but would permit waiver of such requirements only in the case of small, low-power stations operating in small communities which are located in disadvantageous mountainous terrain. In

the words of the Commission itself, "... transmitters engaged solely in rebroadcasting, such as the so-called boosters in smaller communities in mountainous terrain, especially out west." Because of these special circumstances, we have no objection to the limited authorization provided by S. 1886."

The reference to S. 1886 resulted from the introduction, by Senator Moss of Utah, of the language quoted in Brother Hardy's statement. In order to be fully understood, somewhat more of Section 318 of the Act must be consulted. The Act presently provides that:

"The actual operation of all transmitting apparatus in any radio station for which a station license is required by this Act shall be carried on only by a person holding an operator's license issued hereunder, and no person shall operate any such apparatus in such station except under and in accordance with an operator's license issued to him by the Commission: *Provided, however,* That the Commission if it shall find that the public interest, convenience, or necessity will be served thereby may waive or modify the foregoing provisions of this section for the operation of any station except (1) stations for which licensed operators are required by international agreement, (2) stations for which licensed operators are required for safety purposes, (3) stations engaged in broadcasting, and (4) stations operated as common carriers on frequencies below 30,000 kilocycles: *Provided further,* That the Commission shall have power to make special regulations governing the granting of licenses for the use of automatic radio devices and for the operation of such devices."

With the Amendment language inserted, it can be seen that an "exception to an exception" will be provided so that the Commission may waive or modify the provisions of the Section only in the case of stations engaged solely in the function of rebroadcasting the signals of television stations.

This matter, along with CATV provisions, etc., will now be referred to the Interstate and Foreign Commerce Committee and finally to the floor of the United States Senate. Subcommittee proceedings on the subject were concluded on July sixteenth.

ADDENDA

This is the letter to which we refer in the second paragraph of the foregoing story and in which International President Gordon Freeman outlines Brotherhood thinking on the subject.

June 4, 1959.

The Honorable Warren G. Magnuson,
Chairman
Interstate and Foreign Commerce Committee
United States Senate
Washington 25, D. C.

My dear Senator Magnuson:

A few days ago we wrote Senator John O. Pastore since we have learned of the referral of Senate Bill 1741 to the Sub-

committee on Communications. We are writing this letter to you to make you aware of our comments and suggestions to the Sub-committee, inasmuch as you introduced the Bill (by request).

The Bill proposes amendment to the Communications Act of 1934 and would afford the Federal Communications Commission such wide discretionary power as to waive the requirement of licensed operators at "stations engaged in broadcasting." According to the 1958 Annual Report of the Commission, there were 501 commercial and 31 educational television stations on the air in 308 communities as of June 5, 1958. The Report also states that, at the end of fiscal 1958, there were 3,353 "AM" (radio) broadcast stations authorized and 634 "FM" stations. While we have no idea that the Commission would promulgate a waiver for all these stations to operate without licensed operators, it is our view that the Commission should not be so empowered with respect to any of them.

You are aware that Section 318 of the Act presently requires licensed operators at "(1) stations for which licensed operators are required by international agreement, (2) stations for which licensed operators are required for safety purposes, (3) stations engaged in broadcasting, and (4) stations operated as common carriers on frequencies below thirty thousand kilocycles."

The explanation of the Commission in support of the proposed amendment (*Congressional Record*, April 20, 1959, page 5599) includes emphasis of and reference to "... transmitters engaged solely in re-broadcasting, such as the so-called boosters in smaller communities in mountainous terrain, especially out west." The Commission has expressed its concern with the public interest and convenience in affording low-power, isolated and limited-service (area) transmitters a measure of relief from the physical and economic problems arising from attendance of licensed operators. However, an atomic bomb need not be used where a hand grenade will accomplish the purpose desired.

Despite their solely local utility and purpose, the "so-called boosters" are deemed to be instruments in interstate commerce, as is evidenced by the Commission's concern. Inasmuch as we are aware of the problems of the Field Engineering and monitoring Bureau of the Commission in policing and patrolling the radio spectrum, we respectfully suggest that it is little enough safeguard to expect the Act to require licensed operators, in the public interest, convenience and necessity (and with inherent connotations of the National Defense), in *regular* stations serving general areas as distinguished from "re-broadcasting" or "booster" stations in isolated areas. The Commission's 1958 Report shows that the Bureau was able to inspect only 1100 broadcast stations in the fiscal year covered. When this figure is compared with the more than 4000 stations operating in this service, it can be adduced that the best degree of insurance against improper operation is to require the highest degree of proficiency of operations which is consistent with reason. The proposal of S. 1741 most certainly does not afford such insurance.

We respectfully propose that amendment of the Act be limited to affording the Federal Communications Commission the discretion it desires only in the areas of the so-called booster stations engaged in re-broadcasting and, in accord with its explanations in the *Record*, "in smaller communities in mountainous terrain, especially out west." More widespread authority, in our opinion, would be inimical to the public interest, convenience and necessity, the national defense and the employment of Federally-licensed operators.

With all good wishes,

Sincerely,

GORDON M. FREEMAN
International President

Federal Court Enforces NLRB Order

WTVJ, Miami Ordered to Reinstate Discharged Employees With Back Pay

THE Fifth Circuit Court of Appeals has upheld the decision of the NLRB in the WTVJ, Miami case which has been in litigation of one kind or another since early in 1957. The Board found that five employees were discharged because of their union activities, causes cited by the employer for the discharges being "mere pretexts."

Unfair Labor Practice Charges filed by Business Representative Sam Burch were deemed by the Board to be well-founded but the employer refused to comply with the Board order. The General Counsel of the NLRB then took the case to the Federal District Court at New Orleans.

Excerpts from the Court decision of June 29, 1959 follow:

"Findings of Board that employer violated Section 8 (a) (3) of LMRA by discharging five employees because of their union activities are supported by substantial evidence, notwithstanding evidence that the five employees were discharged for good cause, there being ample evidence of employer's hostility to unionization of its employees.

"The Board petitions for enforcement of its order against the respondent based on findings that respondent, in violation of Section 8 (a) (1) of the National Labor Relations Act, threatened employees with reprisals for engaging in union activities, promised them job security for withdrawing from the union, and interrogated them coercively concerning their union activities, and that respondent violated Section 8 (a) (3) and (1) of the Act by discharging five employees because of their union activities. In its brief, "Respondent concedes that there is evidence in the Record to support the Board's finding of violation of Section 8 (a) (1) and, while not admitting that it has violated Section 8(a) (1) of the Act, it does not herein oppose enforcement of that portion of the Board's Order." Respondent does, however, vigorously contest that portion of the Board's order which directs the reinstatement with back pay of five employees.

"The Board agreed with the Trial Examiner that the respondent unlawfully discharged the five employees, but, unlike the Trial Examiner, the Board concluded that the legitimate causes assigned by the respondent were mere pretexts and that actually the five employees were discharged because of their union activities. The Board in its decision sets forth at length its reasons for such findings. Without detailing the facts or the Board's reasoning, but bearing in mind the ample evidence of respondent's hostility to the unionization of its employees, we hold that substantial evidence on the record as a whole supports the Board's findings.

"Respondent, however, calls attention that neither the General Counsel nor the charging union filed any exceptions to any finding or any conclusion of the Trial Examiner relating to the discharges, and insists that the Board has reviewed and reversed a part of the Examiner's findings and conclusions in violation of its own rule; specifically, Section 102.46, *Rules and Regulations of National Labor Relations Board*, Series 7: 'No matter not included in a statement of exceptions may thereafter be urged before the Board, or, in any further proceedings.' We do not think so. Even absent an exception, the Board is not compelled to act as a mere rubber stamp for its Examiner. The narrow construction of the rule for which the respondent contends is, we think, inadmissible, for it would unduly cripple the Board in its administration of the Act. The Board affirmed the Trial Examiner's rulings that each of the five discharges were unlawful, but it disagreed with a part of his reasoning. The quoted rule of the Board does not, in our opinion, cover such a situation. The Board was free to use its own reasoning and was not bound by that of the Examiner. Compare *N.L.R.B. v. Mackay Radio & Telegraph Co.*, 1938, 304 U.S. 333, 350, 351; *Consolidated Edison Co. v. N.L.R.B.*, 1938, 305 U.S. 197, 224, et seq; *N.L.R.B. v. Townsend*, 9th Cir. 1950, 185 F. 2d 378, 384; *N.L.R.B. v. Stocker Mfg. Co.*, 3rd Cir. 1950, 185 F. 2d 451, 454; 42 Am. Jr., *Public Administrative Law*, para. 146. The order is therefore enforced in its entirety.

"Enforced."

Conference Huddle



During the course of the Third Annual Industrial Relations Conference of the IUD, AFL-CIO, Senator Stuart Symington, International Secretary Keenan and President Jacob Potofsky of the Amalgamated Clothing Workers had an opportunity to hold an informal discussion. The conference was held on June 15 and 16 at Philadelphia, Pa.



ELECTRONIC DATA PROCESSING

What It Is and What It Does

Versatile machines expected to trim 25 billion pieces of government paper

RCA has developed a general-purpose business oriented data-processing system of moderate size and cost designed to bridge the gap between the giant electronic brain and electro-mechanical accounting machines, bringing full-scale data-processing within the reach of the small company as well as the large corporation. The RCA 501 is designed on the "building-block" concept to permit easy future expansion. The system employs a common main circuit that permits gradual expansion without replacement of original equipment or change in programming approach.

It is the first business-type electronic data-processing system that employs transistors throughout all companion equipment as well as the computer itself.

THE layman's concept of electronic data processing is usually one of intricate machines that perform pushbutton miracles while batteries of multicolored lights blink mysteriously.

Although that is an accurate but superficial concept, the mysteries of electronic data processing are not as dark and deep as they're usually imagined. Electronic computers, fast becoming essential work tools of business, industry and government, can do many things more efficiently and faster than some human work forces. But they cannot now "think" for themselves. Their immediate value lies in their ability to "remem-

ber"—to store information—and to use their memories with tremendous speed.

Basically, these machines are built to perform many of the routine functions performed by the human brain. For example, they can memorize and recall information immediately; they can recognize shapes, spellings, numbers; they can compare and associate; and they can perform highly involved mathematical functions. Each of these functions, however, must be built into the machine; the equipment itself does not have creative ability or originality.

Electronic "brains" are being used today to process paperwork in banks, insurance offices, manufacturing plants, public utilities and government agencies, including departments of the United States Army, Navy and Air Force.

Some of the primary jobs for which the business-oriented computer is ideally suited are:

Processing information for better and faster management control.

Helping to tie together interrelated but separated activities within the same organization.

Aiding sharper decision-making through management's ability to consider more alternatives and analyze more complicated data relationships to determine future courses of action.

President John L. Burns, Radio Corporation of America, said at a recent Press Conference:

"Never before has paperwork presented American business with so serious a problem. Consider these three facts:

"1. In an effort to keep up with the soaring rise of paperwork, our clerical force in the United States has almost doubled, just in the past fifteen years, to more than 8,000,000 people—enough to populate a city the size of New York.

"2. The white-collar workers passed the direct laboring group in numbers last year for the first time in our history in 1958.

"3. Not long ago, the Hoover Commission noted that the Federal Government produces 25 billion pieces of paper each year—enough, end-to-end, to reach the moon thirteen times.

"The consensus is that, for both Government and business, the best solution to the paperwork problem lies in electronic data processing systems.

"As a leader in communications and other aspects of electronics, RCA has long had a deep interest in electronic data processing techniques. Because of the major switch in the business machine field from electro-mechanical systems to electronic systems, RCA is uniquely equipped for continuing expansion in this field:

"1. In the 1940's our scientists and engineers developed valuable anti-aircraft fire control systems.

"2. In the years 1946 to 1951, our people built for the Navy 'Project Typhoon'—one of the largest analogue computers in the world. This single installation saved the Government tens of millions of dollars by simulating performance characteristics of guided missiles, ships and submarines.

"3. RCA's giant Bizmac system has made notable contributions in the last few years at the Army Ordnance Tank-Automotive Command in Detroit, where it has been called upon to handle as many as 100 million facts about Army supplies around the globe. It is the largest known system in operation.

"4. At the Air Force's Atlantic Missile Test Center at Cape Canaveral, Florida, RCA operates one of the most extensive data processing systems in existence for the Air Force to evaluate missile and rocket performance.

"5. Through our RCA Service Company, we maintain the largest highly trained servicing force for electronic equipment to be found anywhere in the world. This all-important service arm extends across the U. S. and

into many foreign lands for government, industrial and consumer products.

"Because of its remarkable over-all efficiency, its general purpose capabilities, and its low cost per unit of work, the RCA 501 has been received with enthusiasm in business circles. In little more than six months since its introduction, orders for some thirty systems have come from business and Government organizations.

"The 501 was conceived to bring electronic data processing within reach of the average company, as well as the large corporation. Business men no longer have to be content with systems providing too much or too little. Our system built in modular form can be expanded in an orderly fashion as requirements dictate. It can do run-of-the-mill business chores or highly complicated tasks at extremely high speed with substantial savings.

"Let me give you just a few examples of what this computer can do at the lowest cost per transaction in the world today:—

"In a bank application: Working with 300 accounts, the 501 has a proven capability of posting 5,600 normal banking transactions within three-and-one-half minutes.

"In a utility operation: It can match 36,000 daily cash items to a cash sequence file containing 567,000 accounts in only twenty minutes.

"In inventory updating: A company's 5,000 daily transactions are entered onto a master file containing complete product information on 3,000 stock items located in thirty warehouses and three factories, with the result that the inventory is updated and a status report is printed. The time required is just six minutes.

"Printing function: The RCA 501 can print 72,000 mixed letters, numbers and punctuation marks per minute.

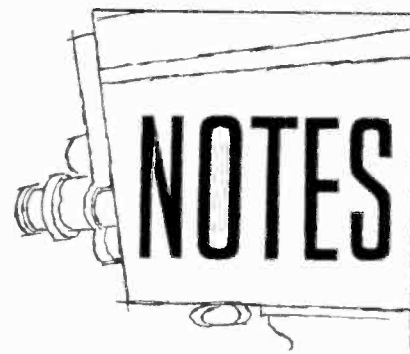
"Magnetic tape: The system can store business records on tape with an efficiency of more than nine million characters per reel and at a speed of 100 inches of tape per second.

"We think this performance is significant, combining enormous speeds and great diversity of operation and, above all, low cost per transaction."

On June 29, RCA opened the first of a series of Computer Service Centers designed to bring electronic data-processing service within reach of thousands of small as well as large business firms. At the same time, plans were disclosed to open a similar center in the Wall Street financial district this fall to ease the mammoth paper-work problems of New York brokerage houses. Other centers are planned in the future elsewhere in the country.

The new center, the heart of which is the new RCA 501 data-processing system, is located at the company's Cherry Hill offices just outside of Camden.

Technical



New KTVI Antenna



One of the longest television broadcast antennas ever shipped in one piece, this 78-foot-long four-bay batwing is loaded aboard an extra-long tractor trailer for shipment to St. Louis, Mo. Manufactured by the General Electric Company's Communication Products Department in Syracuse, the new antenna replaces a similar one blown over during last February's killer tornado which struck St. Louis, completely wrecking the tower and antenna of TV station KTVI.

The new antenna was assembled with batwing radiators, deicing cables, and beacon-light wiring, and pre-tested before delivery. Shipment took about one week, with the trailer traveling over a special route to avoid sharp curves and low bridges.

Really Portable TV

A new lightweight, battery operated fully transistorized portable television receiver weighing 15 pounds including battery was announced recently by Philco Corporation.

Called the "Safari," the cordless, transistorized receiver is only 8 $\frac{3}{8}$ " wide, 16 $\frac{5}{8}$ " high and 5 $\frac{5}{8}$ " deep.

The "Safari" portable has 80 square inches of viewing area, approximately the same size as a 14-inch picture tube. Although the actual image appears on the receiver's two-inch cathode ray tube, it is magnified seven times its original size. In the engineering of the

"Safari," Philco made use of an optical principle called "apparent image," which means that although the actual image appears on a small size tube, the image is raised in value in proportion to the viewer's own normal viewing distance from the receiver. The ideal distance for viewing the "Safari's" full picture is up to four feet away.

Through the cooperation of the Eveready Company, a special rechargeable dry cell battery was developed for the "Safari." The battery is characterized by great power, long life and ease of recharging, despite its small size. Its power cycle permits four full hours of operation before recharging is recommended. Recharging is accomplished by simply plugging the battery into the usual household outlet. The battery is replaced through a special trap-door in the bottom of the case. A special "charge" function switch is built into the set for convenient overnight recharging. The "Safari" sets may also be operated on standard AC house power, like any radio or usual household appliance, by merely plugging them into an electrical outlet.



Water enthusiasts can now enjoy television afloat, as shown above, with the "Safari" by Philco Corporation. Powered by a specially developed alkali battery, the fully transistorized receiver weighs only 15 pounds, including battery.

Station

Breaks

Scholarship Sponsored

The Scholarship and Awards Program of the Baltimore Council of AFL-CIO unions was concluded June 4 with the presentation of four awards to Baltimore City high school seniors. The winner was selected by an examination conducted on June 24, consisting of 50 questions, representing 75 per cent and an essay on one of seven subjects, representing 25 per cent. First prize, a scholarship grant of \$400 and second prize, a scholarship grant of \$100 were taken by students from Southern High School. The scholarship grants were to colleges of the students' choice. Third and fourth prizes, cash awards of \$50 each, were taken by students of Patterson Park High.

The scholarship program began in January with letters sent to each school before the mid-term graduation, followed up by a quantity of announcements and applications. Each participating student was supplied with study materials, pamphlets and bibliography. The Enoch Pratt Free Library prepared a labor reference shelf for use of the students.

The competition was conducted under the supervision of the Scholarship and Awards Committee, composed of three delegates to the Baltimore central body and one representative from each high school, under the chairmanship of Milton Goldberg of the Baltimore Teachers Union.



With the principal of Southern High School standing to his right, Sigman M. Shapiro, center, receives his prize and the congratulations of Business Manager Charles D. Cooper of Local Union 1400.

The Program was sponsored and conducted in cooperation with the following local unions:

Amalgamated Meat Cutters and Butcher Workmen of North America, Local 149; Baltimore Teachers Union, Local 340; Industrial Union of Marine and Shipbuilding Workers of America, Local 33; IBEW, Local 28; International Ladies Garment Workers Union, Upper South Department; International Union of Hod Carriers, Building and Laborers, Local 194; and the Radio, Television and Recording Technicians, Local 1400, IBEW.

School Time On KCOP (TV)

Commercial KCOP (TV) began carrying weekday educational sessions for 27 local school districts March 2. The time and facilities are purchased from KCOP, covering a half-hour session each afternoon at 2.30. The schools provide the program material. A possible one million students can see the classes in school each day. The ETV programs eventually may have commercial sponsorship as the school board has no objection to ads appropriate for teenagers.

Catlin Act Repealed

The punitive Catlin Act, pushed through by Wisconsin Republicans four years ago in an effort to put political handcuffs on organized labor in this state has been repealed.

Gov. Gaylord Nelson (D) signed the repealer after liberal Republicans joined with the Democratic minority in the state Senate to pass the bill by a single vote. It had previously passed the Democratic-controlled Assembly.

The Catlin Act prohibited unions from helping candidates for state office and outlawed union contributions of "any money or thing of value, directly or indirectly, . . . for any political purpose whatsoever."

The bill's author, former Assembly Speaker Mark Catlin, came out of political obscurity to testify at public hearings in a vain effort to block repeal of the law he bulldozed through in 1955.

Technician-Engineer

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