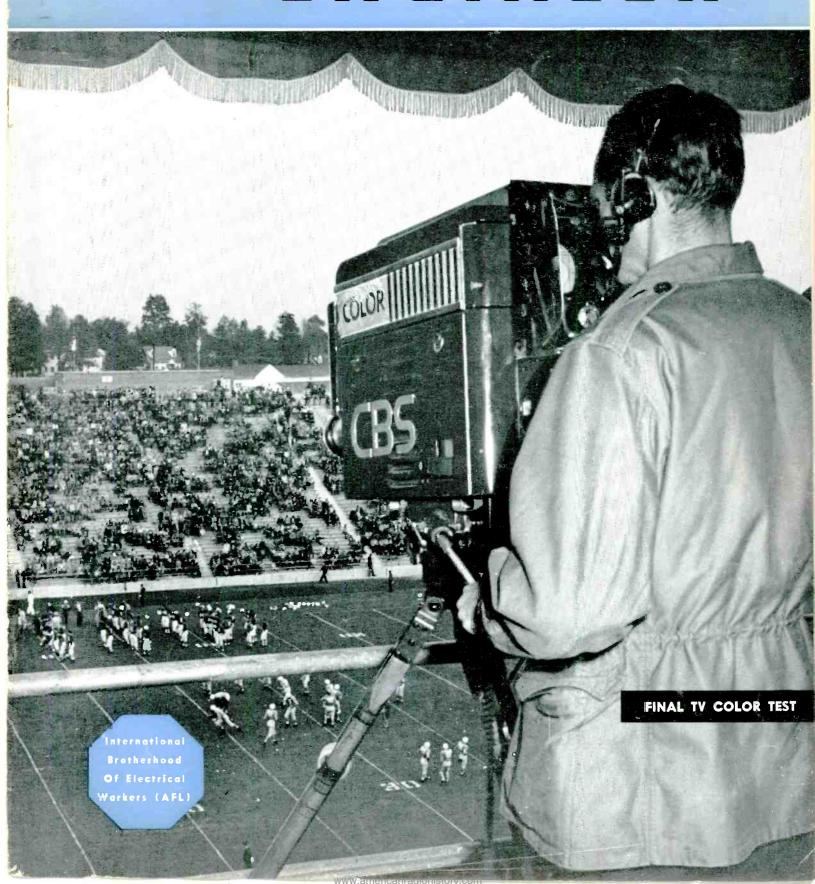
RADIO, TV and RECORDING

IECHNICIAN-ENGINEER







at a time when the laboring man was oppressed as never before, or since. . . . It was an infant struggling to stay alive in the 1890's. . . . Now it is 60 years old. . . . Through the intervening decades it has faced every enemy which Organized Labor might encounter. . . . Its members have won victory after victory. . . . Though the IBEW has developed the sound wisdom which comes with maturity, it has retained the vigor and courage which had made it the foremost champion of a half million of the nation's most skilled craftsmen.



Best Wishes for the Holiday Season and New Year

Doubletalk by Divisionists Seeks to Cover up Real Issues

By D. W. Tracy, President, International Brotherhood of Electrical Workers

OU can't make a program any better by turning up the volume.

But the toddling National Association of Broadcast Engineers and Technicians (CIO) is trying its best to pull such a trick.

The men who rule NABET fully realize their outfit has shaky legs, but they hope to keep attention off those trembling limbs by making a lot of noise. When people hear a lot of racket, it is only natural for them to look around to see where it's coming from. In their search for a big mouth, some of them might overlook the weak knees.

That is the theory on which NABET has been operating in its efforts to confuse workers in the radio and television industries.

One of the things NABET bawls the loudest about is the "split" in the ranks of the engineers and technicians in radio and television. The NABET propaganda corps whimpers that such a division isn't right.

But, these poor wounded slicksters cleverly evade the well-known fact that NABET is itself the "splinter party." They dance glibly around the distasteful knowledge that the reason NABET keeps gasping for breath is the fact a few selfish, stubborn individuals might stand to lose their lavish seats on the gravy train if their scheme to divide the workers folds.

Profitable Enterprise

For example, take a look at *The Broadcast Engineers' Journal*. You'll have a hard time figuring out from its masthead just who owns and operates it, but it apparently is a profitable enterprise.

The Broadcast Engineers' Journal is listed in the masthead as "official publication of the NABET." And, a little further down the line it is stated: "The Broadcast Engineers' Journal is a privately printed monthly publication issued by NABET Publications." (The emphasis is ours.)

Still further on down comes this illuminating declaration:

"Nothing appearing in *The Broadcast Engineers*" *Journal* shall be construed to be an expression of *The Broadcast Engineers*" *Journal* of the National Association of Broadcast Engineers and Technicians, but must be construed as an individual expression of the author or authors."

The NABET rulers have no peers when it comes to confusion.

The editor and business manager of this privately printed, official NABET publication, which prints nothing that can be construed as an expression of NABET, is a member of the NABET Executive Board.

As editor and business manager of *The Broadcast Engineer*, he presumably supervises the assembling of editorial content for the magazine and directs the sale of the considerable amount of advertising which appears in the publication.

Among the trustees of this privately printed magazine is the NABET president. The publication's secretary-treasurer also is executive secretary of NABET.

The Broadcast Engineer monthly appears to be a successful business venture, but the most profitable phase of this publishing enterprise undoubtedly is the annual "Yearbook." In this thick annual, performers on stations serviced by NABET members are thoughtfully allowed to buy a piece of space in which they can extend Christmas greetings. Stars such as Durante and Crosby take a full page, while disc jockeys with local programs manage to get their greetings into an eighth or a quarter of a page.

Special Emphasis

This yearly undertaking is so important to the NABET rulers that the NABET National Council meeting a year ago made special note of it and was told by the union's president that all NABET chapters "would do an outstanding job for NABET's year-book."

NABET's "one union" pose is a slick scheme which its rulers hope will divert attention from the fact that this is the CIO's third try to wedge its way into the broadcasting industry.

Around 1934, an independent organization calling itself the American Radio Telegraphers' Association was formed. It branched out into broadcasting and was adopted by the CIO. Factional disputes set this group on the rocks, and the CIO curled up in a corner to lick the wounds of its first defeat in the broadcasting field.

Later, the American Communications Association was established, seeking jurisdiction over ship radio operators, telegraph company employes and broadcast-

ing technicians. This organization still functions on a small scale, but was expelled from the CIO last year because of allegedly following the Communist line.

As a replacement the ClO has set up the American Radio Association, established primarily for ship operators, and members of NABET have been invited to join forces with the ARA.

Like a bad coin, the CIO keeps turning up in the broadcasting industry. But it never quite manages to get in tune.

Long Contention of IBEW

Certainly we can find no argument with NABET's declaration that there should be "one union" in the broadcasting industry. That has been the contention of the IBEW for the past 20 years.

The IBEW has constantly and successfully fought off "company" and "splinter" unions in the industry for the past two decades.

This union, which through 60 years of service has attained a position of unique respect in the fields of labor, industry and science, offers the nation's broadcasting engineers and technicians not only the unity of "one union," but the security and aggressive bargaining power of a strong, established organization.

A British Lament

The lot of British Broadcasting Company engineers is not a happy one, according to a British radio commentator.

"Broadcasting," he says, by way of preface, "provides something for all tastes and, regrettably, sometimes something for no taste at all. He swallows programmes at a gulp, and, once he has been fed, demands more and more. Jokes which have cost comedians weeks of anxious thought, to say nothing of much scanning of the American magazines, are cracked over the air, and are dead from that moment. Only too rarely will they lie down. Radio 'material,' the product of men's minds, is heard by millions of people all at the same moment. So fresh reinforcements must be summoned, in their turn, to be devoured at a swallow."

Turning then to the engineers, the commentator writes, "And BBC engineers and producers, most of whom are overworked, and all of whom are underpaid, toil manfully on, until, at the age of 65, they are 'retired' with the good will of their colleagues, the relief of their enemies, and with a pension that may, with luck and a friend in the Black Market, be sufficient to keep them in cigarettes for six weeks of the year. . . ."



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D. W. TRACY
President

J. SCOTT MILNE Secretary

VOLUME I



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Sound Off!

THE RADIO, TV AND RECORDING TECHNICIAN-ENGINEER is being published by the International Brotherhood of Electrical Workers (AFL) as a service to workers in the broadcasting and recording industries.

Purpose of this publication will be dissemination of technical information, news items and factual reports on activities of the IBEW, the pioneer union in broadcasting.

Suggestions and criticism intended to make The Technician-Engineer a better publication will be welcomed. Your editors are interested also in receiving items and photographs of unusual interest, but cannot guarantee publication of unsolicited material.

THE TECHNICIAN-ENGINEER is a service and not a profit-making interprise. It will carry no advertising.

If you are employed in the broadcasting, television or recording industries and would like to have the monthly publication mailed to your home, fill out the form below and mail it to:

THE IBEW TECHNICIAN-ENGINEER IBEW Building, 1200 Fifteenth St., N.W., Washington 5, D. C.
Name
Street
City State
StationPosition

CBS stages final test before . . .



COLOR BLACKOUT

Local No. 1212 Engineers Ring Down CBS Color Curtain With Telecast Of Maryland-N. C. Football Game

HE Hollywood movie makers can uncross their fingers for a while.

The rotating discs of CBS have disappeared from the public's horizon as abruptly as the flying saucers of 1950 . . . and they won't be back until the world situation permits mass production of more discs and more color TV sets.

It wasn't the competition of Technicolor extravaganzas that did it. Instead, it was the needs of defense mobilization, the scarcity of vital manufacturing materials, and maybe pressures within the industry too.

Defense Mobilizer Charles E. Wilson called time out on the contest in October, sending CBS to the sidelines to warm up with RCA. In a letter to CBS President Frank Stanton, October 19, Wilson asked Columbia to hold up its commercial production program and asked for the suspension to continue until critical materials are "in sufficient supply to warrant production."

RCA, meanwhile, was already on the sidelines waiting for substitution. On October 10, 1950, the Federal Communications Commission had examined both the RCA and CBS color-television systems, and had adopted the CBS field sequential system in May of this year. The FCC decision had limited RCA to "field tests" of its all-electronic system.

Jubilant with the "go-ahead" from the Federal agency. Columbia laid plans for commercial production of its system. Featuring Arthur Godfrey and other CBS stars in its first public offering, it began demonstration showings in such cities as New York, Washington, Boston, and Baltimore.

Although it did not line up a color network sponsor until just before Wilson's request for suspension, CBS began colorcasting football games and other events to show the versatility of its system.

Its first color football was the Penn vs. California collegiate encounter in Philadelphia. Then followed Princeton vs. Navy at Annapolis, Army vs. Dartmouth

at West Point, and its fourth and final act—Maryland vs. North Carolina at College Park, Md., October 20, the day after Wilson's request called time out on commercial color TV.

CBS rang down its color curtain with a smooth presentation of the College Park game. A crew of 12, all members of IBEW Local No. 1212, was sent down from New York. All equipment was shipped in a 12-foot trunk and a panel truck. The 12-foot truck housed the unit's power generator, and equipment included three cameras, five monitors, 1,500 feet of cable, plus the headphones, mikes and other audio accessories.

The University of Maryland stadium is ideally suited for radio, TV, and press coverage. Its press box features sound-proofed announcing rooms, a spacious top deck for cameras, and the stadium rests in a depression between hills, a fact which saved steps between the various "set-ups" of the TV crew and shortened the cable-laying.

The three cameras, manned by Patrick Finn, Emil Lamendola, and Marty Tuck, were installed beneath



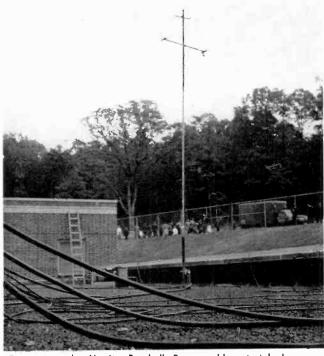
Monitors were set up in the Varsity Baseball Room.



AD Jim Beavers handled the testing and title cards from his position directly behind Patrick Finn's camera.

a canvas canopy within easy range of the 50-yard line. Tuck was using a 25-inch telephoto lens. Finn covered the title cards, which were handled at the easel by AD Jim Beavers. All three cameras covered the game.

In the press box below, the announcing staff was in a private sound-proofed room. Ed Mick of Station WMAR, Baltimore, production staff was AD. Connie Desmond, the announcer, was flanked by his spotters and Bob Cook, a Local No. 1212 man, who served as engineer. At a tiered desk behind them, Al Bressam



From atop the Varsity Baseball Room cables stretched across stadium grounds to the generator truck beyond the fence.



George Zavales of Local No. 1212, who monitored the No. 3 camera, rides gain on a color mixer.

checked his lines and sound as audio engineer. A color receiver was operating just over Desmond's right shoulder, where the whole announcing crew could coordinate the audio and the video.

From the press box audio and video cables, fastened securely to upright bars, stretched over the heads of football enthusiasts to the edge of the stadium. Immediately below, the remaining members of the monitoring and engineering staff was set up in the Varsity Baseball Room. Athletic lockers had been pushed back, the monitors lined up, and AD Bob Bailey was saying "Go back to your 90 and pan around" from a chair atop a large wooden box.

Camera No. 1 engineer in the Varsity Baseball Room was Vernon Cheeseman; Camera No. 2: Charles Lyons; and Camera No. 3: George Zavales. Supervisor for the whole operation was Fred Reinhard. Also in the crew were Bob Wilson and Art Shoufau.

Approximately 100 feet behind the building, beyond the stadium fence, the generator, primarily fed by the campus circuits, ground out the necessary power from the red 12-foot truck. An AT and T tower was set up close to the stadium, for transmission.

Two truck drivers of AFL Teamsters' Local No. 817, theatrical haulers—Harry Hyde and Harry Lazzaro—stood by for any hauling work needed.

The crew had operated smoothly at all three previous colorcast games, without technical difficulties. At this final game, just before the kickoff someone accidentally poured coffee down the monitor in the press box, but even this did not mar the televising of the game.

The game coverage opened with a red and blue card entitled "College Football" and swung from there to the play-by-play commentary. The audience viewing



Ed Mick of WMAR, Baltimore, was AD in the announcing booth. In front of him, Connie Desmond narrates the game.



Local No. 1212 Cameraman Marty Tuck, kept his sights on a fast and furious gridiron battle from his post atop the press box.



From a desk behind the announcing crew, Al Bressam served as audio engineer, helping to coordinate the telecast.

the special telecast at the Washington Post Assembly Room in downtown Washington, D. C., saw an uninterrupted game. At the half the cameras covered interviews with local dignitaries from the field.

The game coverage offered a polished climax to CBS's first venture into commercial color television. And with this event CBS bowed to Defense Mobilizer Wilson's request for suspension.

CBS promptly complied with Wilson's full request, halting its daily colorcasts from New York City, the only regularly scheduled color operation on the air.

Color television for the general public was officially put away in mothballs October 24 following a meeting of Defense Mobilizer Wilson with 21 leading TV manufacturers. Wilson announced after the meeting in Washington that they had all agreed not to engage in mass production of home color receivers while basic materials remain scarce.

"The industry is free to pursue research and development without government interference," Wilson said, and he noted that some color developments may be valuable for military uses.

Although Wilson's action cut the switch on CBS-Columbia's plans for mass production of color receivers, and thereby took away the benefits of "shakedown" testing under such conditions, CBS will still be able to proceed with its laboratory testing and research.

CBS engineers have already developed a console receiving unit which is completely self-contained to receive both black-and-white transmission and CBS color transmission. With the exterior no larger than most current monochrome models, the CBS console unit can change from color to black-and-white at the flick of a switch. It receives black-and-white at 525 lines or full color at 405 lines. With the exception

of the scanning mechanism and its associated 3-tube disc control circuit, the fundamental circuitory in every section of the receiver is already known to the television industry and should not present too complex a problem of servicing for service technicians, CBS research engineers report. The receiver uses circuits which have been production tested and field-tested for many years, they add.

Columbia became a manufacturer of color receivers when it bought out the Hytron Radio and Electronics Corporation. Other major manufacturers had shown a reluctance to make sets according to CBS specifications, because of the uncertainty of future color TV developments or for technical reasons.

The resulting CBS receiver was developed by I. J. Melman, E. S. White, and S. Cuker, with the advice and assistance of staff engineers—Dr. Peter Goldmark, John Christianson, and Al Goldberg.

The CBS research men defend their color disc with these statements:

"Color discs offer the most faithful color reproduction that has been obtained to date."

"One of the advantages of the field-sequential system for color transmission and reception is that the frequency of color switching is low enough to render it practical to use with electronic, electromechanical, or comparatively simple mechanical devices. The simplest technique yet perfected is the rotating color disc."

"There is no need to fear disc-rotating noise. The proper motor and shock mounting makes the operation essentially noiseless."

But noise or no noise, electronic scanning or disc scanning, the "flying colored saucers" of CBS which have tantilized the buying public for months have disappeared from the market until basic materials are again in abundance.

TECHNICAL NOTES

'Canned' Book Reviews

Broadcast Music, Inc., has sent a series of 13 "canned" book reviews to 2,700 radio, FM, and television stations around the nation, which are intended to encourage children to make friends with their libraries. The series is intended as a public service feature.

Will the idea siphon off some of television's rabid younger audience? The New York Times book editor asks. In reply, BMI President Carl Haverlia says, "What it may give us is a more intelligent audience. If this happens, TV will not be hurt."

Filmless 'Camera' Records Images

Two electronics engineers at Beverly Hills, Calif., recently demonstrated a filmless "camera" that they hope will provide television with a cheaper way to reproduce programs.

The "camera" does not actually take a picture. A television camera is its "eye" and an electronic device records what the TV camera sees. These records are stored on magnetized tape, which is designed to play back images on an ordinary TV home receiver.

The two engineers—John T. Mullin, 33, and Wayne R. Johnson, 29—hope that the filmless "camera" will also revolutionize the motion picture industry by providing a cheaper way of recording picture and sound.

After two years of research, the engineers successfully took their first "picture" during November in the laboratories of Bing Crosby Enterprises, Beverly Hills. They used ordinary plastic sound recording tape.

Will Vacuum Tube Be Obsolete?

Will the vacuum tube become obsolete?

David Sarnoff, Chairman of the Board, RCA, in a U. S. News and World Report interview, recently predicted that "the greatest single invention of the electronic age" may soon have a successor.

"Lately scientists have reported that you can get electronics to work in solids as well as in a vacuum tube," he said. "We always thought that we had to heat a filament and create heat inside a vacuum in order to put the electrons to work. In other words, we had to boil these electrons out of the things that existed inside the vacuum tube before they would do their job."

The RCA chief reminded that the crystal, germanium, is able to do what the vacuum tube does as a detector or as an amplifier. "It doesn't yet do it as well—it's still in the experimental stage—but it is being steadily improved."

Sarnoff predicted that a piece of metal or crystal the

size of a shoe button will be able to do what vacuum tubes are now doing.

The vacuum principle in electronics got its start way back in 1654, when Robert Boyle observed that electrical attraction may take place through a vacuum. When the wireless telephone was extensively developed during World War I, the vacuum tube came into its own and has steadily progressed with radio.

Million TV Sets in Inventory

New television sets in the possession of retail dealers for purchase by U. S. families are estimated to have ranged between 900,000 and 1,150,000 units at the beginning of August, 1951. This estimate includes between 350,000 and 450,000 table models, and between 550,000 and 700,00 other television sets. The estimates are those of Dun and Bradstreet's business information division.

The total U. S. retail inventories of new home radios are estimated to have ranged between 1,400,000 and 1,700,000 units at the beginning of August, and the retail stocks of new battery portable radios ranged between 375,000 and 450,000 units at the same time.

Dun and Bradstreet's survey, which is to be a continuing one, was made at the request of a group of manufacturers of sets and component parts.

Government Orders Almost Double

In the second quarter of 1951, the U. S. Government placed orders for radio and communications transmitting apparatus totaling \$324,493,087. This compares with orders of \$184,216,795 in the first quarter.

Orders for radar equipments, including search, navigational and fire control, amounted to \$187,598,079 of the total orders. Communications apparatus accounted for \$115,500,969 and radio navigational aids represented \$13,886,981.

Roy Rogers Refuses to Ride!

IBEW movie film editors for TV will be watching the outcome of a recent action by Cowboy Star Roy Rogers. Rogers recently got a permanent injunction in federal court to keep Republic Studios from selling any of his 81 horse operas to TV stations. His new TV contract with General Foods would be void if his old movies were televised. The cowboy star is looking toward his future income, of course, but will his action make his services too costly for sponsors . . . while Ken Maynard and Tom Tyler ride again?

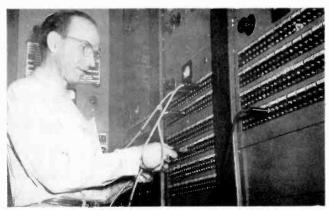
A Victory in ST. LOUIS

THE real strength of the IBEW and the value of belonging to an organization which is interlocked with other trades and trade branches could not be more ably demonstrated than in the recent St. Louis work stoppage. As Local Union 1217 puts it in a letter to the International President:

"The team work between the I. O. and our Local which predominated throughout the negotiations would, in our opinion, brand the story in 'Broadcasting' of October 29, 1951 as malicious propaganda, insofar as any rift between our Local Union and the International Office is concerned. If the rival outfit had half as close an understanding as we do, they would undoubtedly show better results than they have obtained heretofore. True, we do not always agree on some points—but when unity of purpose is needed, the close-knit bond of brotherhood in the IBEW always welds us together in one mighty weapon for victory."

Negotiations with seven stations reached a deadlock at 2 o'clock in the morning on November 15th, with eight issues unresolved. The result? Only two St. Louis stations signed on at their regularly scheduled time: KMOX, which is covered by the national CBS agreement, and KFUO, a non-profit station. The management of KSD and the representatives of the union reached agreement shortly after the picket line appeared at the KSD and KSD-TV studios, and KSD signed on at 8:10 A. M. KSD-TV came on the air at 8:15, on schedule, with their test pattern.

WIL, KXOK, KWK, WEW, WTMV (and WTMV-FM) and KXLW were off the air entirely on November 15th, resuming normal operations the next day at their regular times, as the result of "woodchopping" negotiations arranged for by Commissioner Hale of the Federal Mediation and Conciliation Service. Thus



Art Young of IBEW Local No. 1217 patches up an audio circuit.



Back at work: Bert Hall at the master control desk, KSD, St. Louis.

ended the first city-wide strike in some 16 or 17 years. Strike action was resorted to in December of 1948 at one station in St. Louis, which is the only previous incident of this kind. Both the 1948 and the 1951 work stoppages produced the same results—satisfactory, reasonable settlements of the issues.

The stations demanded a 3-year agreement, unilateral determination of meal periods, a scheduling arrangement which is inferior to that provided for in the previous agreement, an ill-defined union shop arrangement, an unacceptable sick-leave plan, a change in arbitration procedures and city-wide participation in negotiations for working rules for television—but with only one TV station actually affected. Added to a retrogression from the preceding agreement—in effect, a return to an escalator arrangement—affecting wages, these terms were a little too stiff to be able to accept.

President Denis Volas and a negotiating team comprised of the Executive Board carried on negotiations with the representatives of the stations from start to finish. International Vice President Frank Jacobs was on the scene, as was International Representative Al Hardy, and the close coordination of the local officers, members and the International staff was a heartening and inspiring experience for all. When negotiations broke down, maintenance electricians, construction electricians and members of other branches of the Brotherhood were immediately notified. Picket lines were respected by members of AFRA, AF of M, IATSE and other sympathetic workers. Since some stations' studios are in hotel buildings, pickets were asked time and again if the whole buildings were "off limits" or whether just the stations were involved. Bartenders, teamsters, musicians and building employes were particularly careful about this detail.

A memorandum agreement was signed by midnight of November 15th, with the understanding that a supplemental agreement covering television working rules (Continued on Page 12)

the RECORD SPEAKS . . .

Veteran of 20 Years of Broadcast Bargaining, IBEW Has Radio and TV Station Agreements in 43 States



A DISC JOCKEY, short of continuity, might comment that radio had its ups and downs in 1932.

For in the summer of that depression year, Professor Auguste Picard broadcast to America by shortwave before taking off in a balloon for a trip into the stratosphere.

Then a month later, William Beebe spoke remotely to America from an airtight bathosphere, as he was being lowered 12,200 feet into the cold, dark Atlantic deep off Bermuda.

While these high and low frequency events were taking place, still another was occurring, which, although it didn't make the news columns then, was ultimately to have more significance to the radio industry as either of the other two.

For during 1932 the technical personnel of five St. Louis radio stations—KMOX, KSD, WEW, and WIL—walked into a local meeting of the International Brotherhood of Electrical Workers and were welcomed as brothers.

Members in 72 Cities

That was twenty years ago. Since that time broadcast engineers have become IBEW journeymen in 72 American cities. They have formed their own IBEW broadcasting locals in 53 of these cities. Only five states are now without an IBEW radio or TV station agreement, because of their work.

Why is this so significant? Because radio, television, and recording engineers in every state will eventually have the full value of an experienced and trusted bargaining agent to help them in negotiations for better wages and working conditions.

"That's all well and good," some engineer may be saying, "I don't mind making more money and getting a little more time away from that studio clock.

"But I'm no knob and tube man. My hands aren't blistered from pulling conduit. I'm tossing kilocycles around the ether, not installing switch boxes. Why would a broadcasting engineer want to belong to an electrical workers' union?"

Let's put the IBEW record on $33\frac{1}{3}$ and find out why:

You might say that Thales, the old Greek philosopher started the whole thing. He was polishing a chunk of amber one day in the little town of Miletus beside the Mediterranean Sea, when he noticed that the straws were attracted to the amber by some mysterious property within the mineral. He recorded his observation. The straws blew into the wind, and for centuries little new knowledge was created to form what might be called a science of electricity.

In 1654 Robert Boyle observed that electrical attraction can occur in a vacuum.

The Leyden Jar was developed, and in the 18th century, Benjamin Franklin flew his kite.

In 1827 the term "microphone" was coined by Sir Charles Wheatstone as the name for an acoustic device he had built to amplify feeble sounds.

Fifty years later, Emile Berliner of Washington, D. C., noted that the resistance of a loose electrical contact varies with pressure, and he applied the principle to the design of what Sir Charles had named "microphone."

These and other events were added to man's book of knowledge, so that when Edison and Marconi made their key discoveries late in the 19th century, a stockpile of facts was already at hand.

Edison was still producing his early wonders when the electrical workers felt a need to organize. Although the electric light was only a few years old, men were already climbing poles, splicing wires, and risking their lives on highlines. Insurance companies would not insure them. The men were working for 20 cents an hour. A salary of \$2.50 a day was good wages. Working conditions were far below par.

Originated in St. Louis

To unite for their own betterment, an electrical workers' union was organized at St. Louis in 1890, becoming Federal Local No. 5221 of the American Federation of Labor. Later an AFL charter was issued to the group as National Brotherhood of Electrical Workers, Local No. 1.

Those were the days when organized labor had to meet in secret . . . when union membership was clandestine for fear of management reprisals.

The first president of the Brotherhood, Henry Miller,

The IBEW Technician-Engineer

had to ply his trade as an itinerant electrician . . . going from job to job, quietly organizing electrical workers under the NBEW banner.

The electrical workers of those days were the TV engineers of today . . . pioneers in an amazing new field. Needing unity of organization in order to bargain for their rights, they were waging an uphill battle.

While their industry was becoming established, radio had come into its own, as well.

Guglielmo Marconi was sending wireless signals farther and farther. Each year he struggled for a little more range. In 1895 he was able to send and receive wireless signals across his father's estate at Bologna, Italy. The following year he sent signals across two miles of Salisbury Plain in England. In 1897, receiving on a tugboat, he was able to pick up wireless messages from the Isle of Wight, 17 miles distant. By 1898 he was able to radio reports on the Kingstown Regatta off the Irish Coast direct to newspapers in Dublin. The following year, a Marconi message crossed the English Channel, and three British warships exchanged messages across 75 miles of water.

Radio was still in its early experimental stages, when the IBEW was established. Two more decades passed before radio went into commercial production and broadcast engineering became a new profession.

Started As Electricians

Many of the early radio technicians and engineers started out as electricians. With a basic knowlodge of electronics, they were able to step into early radio operator jobs with little difficulty. For those were the days of the crystal set; then came the reflex sets, the regeneratives, the super-regeneratives, and finally the super-heterodyne. There were no apprenticeships. Radio enthusiasts just gradually worked from crystal sets to vacuum tubes. A salary of \$90 a month was high pay and many operators were paid only half that much.

The radio industry had made much progress by the time the first broadcast engineers joined the IBEW in 1932. (Wages and working conditions for broadcast engineers had not.) By 1932, heavyweight fights had been broadcast, remote control pickups had become an established procedure. The first multiple station hookup by wire was accomplished in 1923, when Stations WEAF, New York; WGY, Schenectady; KDKA, Pittsburgh, and KYW, Chicago, completed a circuit. An experimental television transmitter, W2XBS, had even gone into operation in New York City.

Up until 1927 the Department of Commerce had regulated the embryonic industry. The task had not been too difficult for a small branch organization of the Department, for in the early days stations were scattered, and receivers ranged from crystal sets to Majestics. Radio engineers and technicians had been called "radio operators," and almost all transmitters were composites. The days of the ready-built GE,

Collins, RCA, and other transmitters were still ahead.

In the boom months of 1927 the total number of stations reached a peak of 733, and the problems of radio regulations required a firmer hand. The Federal Radio Commission then took over the Department of Commerce's radio job.

The industry expanded still more, and in 1934, the Federal Communications Commission replaced the FRC.

In 1932, the year radio stations were mobilized to aid in the search for the Lindbergh baby, the first broadcast engineers of St. Louis felt the need for organized strength in their bargaining with management. Curiously enough, they turned to the first local founded by electrical workers, Local No. 1, IBEW. They were accepted into full card-carrying membership.

WCFL Technicians Join

Soon afterward the technical personnel of Station WCFL, the Chicago Federation of Labor station, licensed in 1926, joined IBEW, Local No. 134.

The staffs of three stations in Birmingham, Ala., incensed by a strike at one of the stations (in the course of negotiating an agreement) joined the IBEW. These were engineers at Stations WAPI, WBRC, and WSGN.

To meet the needs of these new and vital additions to the Brotherhood, the IBEW assigned an international representative to radio—T. McLain, of Local No. 1.

The first IBEW local exclusively made up of broadcasting men was Local No. 253 of Birmingham, Ala., which was chartered October 9, 1933.

Among the early broadcast locals were Local No. 715 of Milwaukee, organized in 1937, and Local No. 622 of Chattanooga, which came in 1938.

By 1934 the American radio broadcasting industry was beginning to find its strength. A total of 591 stations were operating throughout the nation. This was quite an increase over the 30 authorized to operate in 1922—just 12 years before. And, although the depression had taken its toll of stations, cutting the total from a 1927 peak of 733, the industry grew steadily after the crucial early days of the depression were past.

Two or three independent organizations of broadcasting engineers and technicians came into existence in this period. In the Columbia Broadcasting System, the Association of Broadcasting Technicians was formed. Over the old red and blue networks of the National Broadcasting, the Association of Technical Employes of NBC was organized.

The two groups went divergent ways. The CBS organization voted, through a referendum of the membership in April, 1939, to join the International Brotherhood of Electrical Workers, which for seven years had been offering more and more advantages of organizational strength to technicians. NBC's Association of Technical Employes later became NABET . . . then NABET-CIO in April of this year.

The merger of the CBS organization with the en-

gineers and technicians of 50 stations already operating under IBEW contracts was a stimulant which has encouraged this branch of the International Brotherhood to greater and still greater heights.

In the latter part of 1939, IBEW had one international representative for broadcast technicians in the United States—the late D. J. Dunlop.

The following year, three additional representatives were added.

At present, the IBEW has 10 men in the field assigned exclusively to radio and television broadcast work. These men are playing a vital role in helping the broadcasting locals to settle local disputes, work out contract agreements, and perfect organization.

Remarkable Record

Seventy-two IBEW locals now list radio and television members; all but 19 of these 72 are exclusive broadcasting locals.

Only five states are without IBEW radio or TV station agreement. They include: Vermont, Delaware, South Carolina, Mississippi, and South Dakota.

More than 9,000 IBEW members are from this vital facet of the electronics industry.

More than 450 standard AM stations and 250 FM stations now have agreements with IBEW. Fifty-four TV stations either have IBEW contracts or IBEW is the certified collective bargaining agent.

The radio, television and recording industries have been marked by jurisdictional turmoils ever since the labor movement first reached this new and expanding field. Not only have there been network battles, ASCAP vs. BMI scraps, and big management turnovers, but labor groups have cut across jurisdictional boundaries right and left.

In 1937 a new announcers union, the American Guild of Radio Announcers and Producers, began organizing the announcing and production staffs of CBS. During the same year, the American Federation of Musicians launched a reemployment campaign among broadcasters at its annual convention in Louisville, Ky., which resulted in formal contracts with many stations and networks.

On May 28, 1945, the CIO, through its New York branch of the United Office and Professional Workers of America, began large-scale organizing work among network and agency personnel.

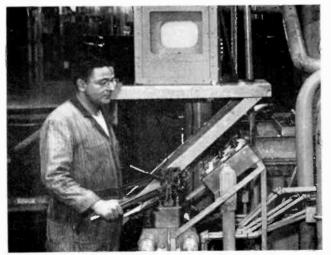
On September 13 of that year, the National Association of Broadcast Engineers and Technicians, begun at NBC, called a strike of engineers at all owned stations of the NBC and ABC networks, which ended after 25½ hours. Work was resumed under a new contract, but gains were not exceptional.

Third Try for CIO

NABET—or the National Association of Broadcasting Engineers and Technicians—is the CIO's third try...

Through all this divergence of allegiance, the IBEW has steadily progressed. It calls for unity among radio, TV, and recording engineers, offering to broadcast engineers a relationship and security they cannot find in fly-by-night movements.

Television in Industry



With the aid of a television screen, a worker in the General Motors plant in Michigan is now able to load railroad cars which he cannot see. From the control panel of a scrap baler inside the plant he operates a compressor that squeezes scrap metal into blocks and a conveyor which carries the blocks to a railroad car. Also by remote control, he can move the car as it fills up so the load will be evenly distributed. He can do all this because he has a TV screen beside his panel, and there is a TV camera atop the roof of the building which looks down on the loading scene and transmits pictures to the worker's screen.

Victory in St. Louis

(Continued from Page 9)

would be negotiated within the following ten days and the remainder of the points at issue were detailed for inclusion in all agreements. Except for such changes as the memorandum provided, the previous year's agreement and the new agreement are identical. Briefly, the new agreement is for one year, meal periods are to be scheduled by mutual agreement between the management and the employes, work schedules are to be posted 30 days in advance, the union shop provision is such as to provide the maximum union security possible under the present laws, sick leave is cumulative to a maximum of six weeks and the standard IBEW arbitration procedure is to be continued. Wages are increased to the maximum permitted by current WSB regulations, amounting to an increase of some \$6.58 per week.

The members of 1217 have set another milestone in their steady march of progress. They have every reason to be proud of their record and their membership in IBEW and affiliation with the AF of L are prized possessions of a militant and united organization.

The IBEW Technician-Engineer

Station Breaks

FCC Petition for IBEW Local No. 1215

On November 27, Louis Sherman, General Counsel for IBEW filed a petition with the FCC on behalf of Washington, D. C., Local No. 1215, which, though unique, offered additional evidence of the valuable assistance of the International to local union bargaining.

The petition grew out of the recent license assignment of AM Station WINX by Banks Independent Broadcasting Co. to United Broadcasting Co., Inc., negotiated without explanation of the status of IBEW engineers employed at the station.

IBEW Local No. 1215 has represented WINX engineers since February, 1941, and during the successive ownerships of WINX Broadcasting Co. and Banks Broadcasting Co., has held signed collective bargaining agreements protecting the interests of the technicians and engineers. The current agreement was entered into September 28, 1950, for the period June 16, 1950, to June 15, 1951, and from year to year thereafter. The agreement now runs to June 15, 1952, so it has five and one-half months to run.

Under the agreement with Banks, it is stated that the IBEW local is sole bargaining agent for all broadcast technicians and engineers, up to and including the chief engineer, "now or hereafter employed by Employer, its lessees, successors or assigns during the terms of this agreement."

Local No. 1215 raised the question of the continued employment and welfare of the station's engineers in communications to Banks, United, and the Secretary of FCC, last August. When no replies had been received by September 24, the local mailed to the FCC Secretary a letter setting forth its position in the matter of license transfer. No response was received.

Citing ICC cases as precedent, the November petition lists many reasons why the agreement with Banks should continue to serve Local No. 1215 members on the WINX staff.

Grid Telecast Blocked

The Engineers' strike at KSTP-TV, St. Paul, Minn., which is now in its second year, prevented the October 20 telecast pickup of the University of Minnesota vs. Nebraska gridiron battle for NCAA-Westinghouse on

NBC-TV. Instead the network carried the Indiana-Ohio State game. Under network contract with NCAA, the game couldn't be handled by rival WTCN-TV, even though the latter carries films of Minnesota games every Monday night.

Convention Televised

A morning session of the recent Eleventh Annual Convention of the AFL International Hod Carriers' Building and Common Laborers' Union in Chicago was photographed by cameras of Station WGN-TV.

Two topflight convention speakers appeared on the telecast—Mayor Martin H. Kennelly of Chicago and Secretary of Labor Maurice J. Tobin. The telecast originated later in the evening from a Chicago station.

Joins Engineering Staff

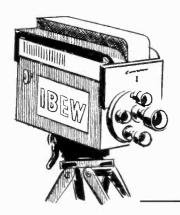
Robin D. Compton, former chief engineer of WOIC, Washington, D. C. (now WTOP-TV), has joined the Washington consulting engineering staff of George C. Davis.

Oldest Tube 'Dies in Action'

An item of equipment handled by IBEW engineers of Local No. 77 has just accomplished a record for Station KING-TV, Seattle. An RCA press release reads: "The nation's oldest 8D21 TV tube dies in action at KING-TV." The transmitting tube was 9254.8 hours old, a new longevity record for this type of tube.

WOR Engineers Mark Anniversary

Engineers at WOR, New York City, completed two years under the IBEW banner, November 9. They joined the International Brotherhood in 1949 after negotiations between WOR and the National Association of Broadcast Engineers and Technicians (NABET) broke down on May 23 of that year. A final station offer of \$2.50 across the board for a two-year deal was not acceptable to the rank and file, which at that time had NABET as bargaining agent. So the engineers of the station switched over to IBEW Local No. 1212 and are still happily with us.



CAMERA LIGHTS

on 'CAPITOL CLOAKROOM'

ASHINGTON, with the largest aggregation of press and radio correspondents to be found anywhere, is a place to which the eyes of the world turn more and more frequently for news in the atomic age.

A lot of this news is dug up by newsmen whose beat is the White House, the Capitol, the Pentagon and the vast number of government agencies. And sometimes the news is made right in Washington's radio and television studios. That comes about when a key figure in government or business, either through premeditation or by some shrewd needling on the part of his questioners, appears on one of the many panel-type discussion programs that go on the year around in the nation's capital.

Typical of these programs is CBS' "Capitol Cloak-room," now in its fourth year of presenting national headliners to network listeners. Formerly on the CBS-TV net, it's now a Friday night AM show. Conducting the questioning of the guests is an experienced panel of CBS newshawks including Bill Shadel, Griffing Bancroft and Bill Costello.

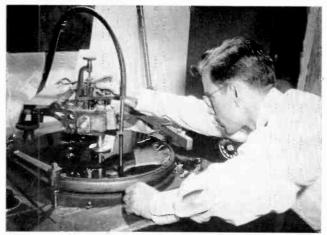
Behind the scenes at "Capitol Cloakroom" are a couple of experienced engineers, both members of Local 1215, Washington. They are Bill Brubaker, sound, and Ray Hilley, recording. Brubaker has watched quite a few Senators and Representatives get steamed up. That's when he has to pay careful attention to his meter for voice peaks. It doesn't take much for some resonant or hot-under-the-collar Congressman to send the needle over the norm of 100, under the questioning of Messrs. Bancroft, Shaddell and Costello. Ray Hilley, the recording engineer, works in a separate room.

Unfortunately, Congress wasn't in session this month when the *Technician-Engineer* went down to observe the broadcast on the 8th floor of the Warner Building, WTOP-CBS headquarters in Washington.

With the big names out of town, "Capitol Cloakroom" had to settle for a little-known Congressman, John Bennett, Republican of Michigan. A staunch isolationist, Mr. Bennett was anti-Administration, anti-Marshalf Plan and didn't believe the U. S. should have entered Korea.



Anita Chester, assistant producer of "Capitol Cloakroom," cues Engineer Bill Brubaker as another program gets underway.



Ray Hil ay records program for later broadcast on CBS ne-



The guest of the program, Congressman John Bennett of Michigan, left, is interviewed by CBS correspondents Bill Costello, Griffing Bancroft and Bill Shadel, all veteran newsmen.

The IBEW Technician-Engineer

Paces Busy LA Station

When Radio Station KLAC-TV, Los Angeles, went on the air in the fall of 1948, it was organized on a vertical basis by IBEW Local No. 45. The local has an agreement covering production as well as engineering employes.

One of the best live shows handled by KLAC engineers is the daily Al Jarvis Show, which goes on for five busy hours. Keyed to the ad-libbing ability of Jarvis, the show develops a lot of new talent.

Another show that is very popular is "You're Never Too Old," which features talent over 60 years of age and is MCed by Marilyn Hare.

A favor'te of Southern Californians, KLAC is staffed by an industrious group of IBEW members.

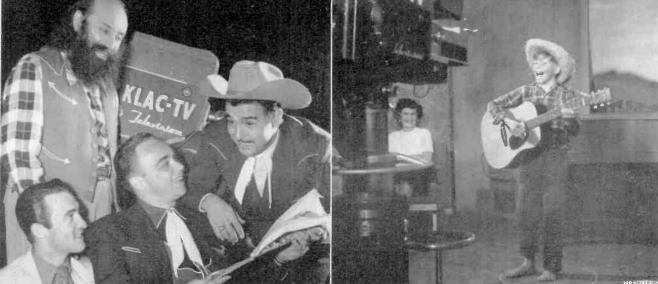
Top: Jim Boyd, a Jarvis ster, passes out a spansor's product—artichokes—to Mary Sampley, Betty White, Al Jarvis, and Cliff Whitcomb.

Right: A Social Socurity representative, Miss White, and Jarvis put on a public service spot.

Lower Left: The Tennessee E-nie Cast—Herman the Herm't (standing), Eddie Kirk, Cliffie Stone, and Ernie.

Lower Right: Jim Boyd, now on the Frank Sinatra show, stands in the chalk circle.





In Unity There Is Progress:

In Division, Despair

HEN many skilled craftsmen and technicians are employed in a big industry, the progress of each group is linked with the welfare of the other.

Cooperation and teamwork among the organizations which represent various classifications of employes in the industry are absolute necessities if each group is to be assured a fair deal from management.

This spirit of inter-union cooperation is a guiding philosophy of American Federation of Labor unions, particularly those representing artists and technicians in the broadcasting and recording industries. Certainly those unions have had minor differences in the past, but they never have tolerated situations which worked hardships on the members they represent.

American Federation of Labor unions long have represented an overwhelming majority of organized personnel in the broadcasting and recording industries, and they have done so with rare dignity and success.

Actors have a strong organization in the Associated Actors and Artists of America. President of this AFL group is Paul Dullzell, and secretary is Lewis M. Simon.

The accomplishments of the AFL American Federation of Musicians for its members are legend. Under the leadership of AFM President James C. Petrillo, the musicians have attained a degree of security in the recording and broadcasting industries which they could never have hoped to achieve without the protection of a strong AFL union. The Musician's Union secretary is Leo Cluesmann.

Another strong AFL union in the field of broadcasting and telecasting is the International Alliance of Stage Employes. This great AFL organization also represents a vast number of employes in motion picture studios which are producing more and more TV films to meet demands created by more extensive television programming. The president of IATSE is Richard F. Walsh, and the organization's secretary is William P. Raoul.

Directors in the broadcasting industry are successfully represented by the AFL Radio and Television Directors' Guild of which Dick Mack is president and Charles Powers, secretary.

And, of course, broadcasting and recording technicians and engineers have negotiated with management under the banner of the IBEW since early 1930's, when the industry was in its infancy.

Under the highly responsible and vigorous representation of these AFL unions, artists and technicians in virtually every phase of broadcasting have made continuous progress in their struggle to maintain wage scales and working conditions commensurate with their high degree of skill and service.

In striking contrast to the AFL's achievement and steady growth in the industry, the ClO's efforts to invade and divide workers in broadcasting have been erratic and marked with no notable accomplishment. Even when ClO unions and so-called "independents" have survived any length of time in the industry, they primarily have been forced to wait for the IBEW and other AFL unions to establish "patterns" before they could complete their own bargaining negotiations. Thus, members of such unions as NABET and non-union broadcast workers, as well, have benefitted directly from the strength and cooperation of the IBEW and other AFL organizations in broadcasting.

In recent years this situation of a non-AFL union hanging onto the coat-tail of the IBEW has been clearly demonstrated in negotiations at CBS and NBC. The IBEW, for instance, was the first to establish an eight-hour day on any national network. After the ice had been broken, NABET managed to acquire a similar condition at NBC.

In 1943, the IBEW became the first union to reduce the nine-year escalator in network wage schedules, cutting the figure to six years at CBS. Later on, NABET was given the same thing at NBC.

Then, in 1945, the IBEW succeeded in reducing the figure to five years.

NABET, riding the tide of IBEW success, again was granted a similar reduction at NBC.

As a matter of fact, NABET never closes its agreement with NBC until the IBEW and CBS conclude their negotiations. The indication is that NABET must have a pattern or it can't negotiate.

That fact, in itself, is the best tribute that can be given to the IBEW and the strong bargaining position it has attained through close cooperation with other unions of the 7,000,000-member American Federation of Labor, a federation which long has been the dominating representative organization among artists, musicians and technicians in the broadcasting and recording industries.