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INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS — AFL-CIO

Adoption of MAINTENANCE OF MEMBERSHIP AGREEMENTS

Under
War Labor Board,
1942



Organized labor played a major role in participating in public agencies during World War II. Labor's representatives were numbered among the members of principal policy-making boards, commissions, etc.

Among the most important of the agencies was the War Labor Board, established as a result of a meeting in Washington, D. C. December 17, 1941, just ten days after Pearl Harbor. An agreement was made in this meeting which pledged no strikes and no lockouts for the duration and also pledged to settle industrial disputes peaceably.

An early decision made by the War Labor Board in 1942 concerned the union security issue. Provision was made for

the maintenance of membership agreements. This policy was upheld during the war. One historian of the period says that "Nothing could have contributed more substantially to industrial peace than such assurance that union security and individual freedom of action would be alike safeguarded."

At the end of 1942 AFL President William Green told the Federation convention that labor had "maintained the finest record of continuous, uninterrupted production ever achieved."

The maintenance of membership policy saved much of unionism at a critical period and is indeed a landmark in a time of crisis.

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The INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS

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JOSEPH D. KEENAN

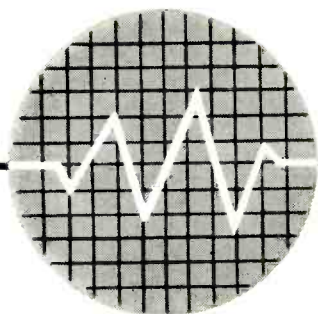
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ALBERT O. HARDY

Editor, Technician-Engineer



TECHNICIAN ENGINEER

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ALBERT O. HARDY, Editor

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the cover

Television draws the nation and the world ever closer. This month we present, as our major report, a summary of community antenna television today. Our January cover shows some of the components of CATV—the antenna, the line-man, the cable connections, and the controls—all superimposed on a quiet little village nestled in a New England valley.

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 1963 figures: November, 1964—108.7; November 1963—107.5

commentary

President Lyndon Johnson, in his recent "State of the Union Message" to Congress, had this to say:

"We still live in a troubled and perilous world. There is no longer a single threat. There are many. They differ in intensity and danger. They require different attitudes and different answers.

"With the Soviet Union we seek peaceful understandings that can lessen the danger to freedom.

"Last fall I asked the American people to choose that course.

"I will carry forward their command.

"If we are to live together in peace, we must come to know each other better.

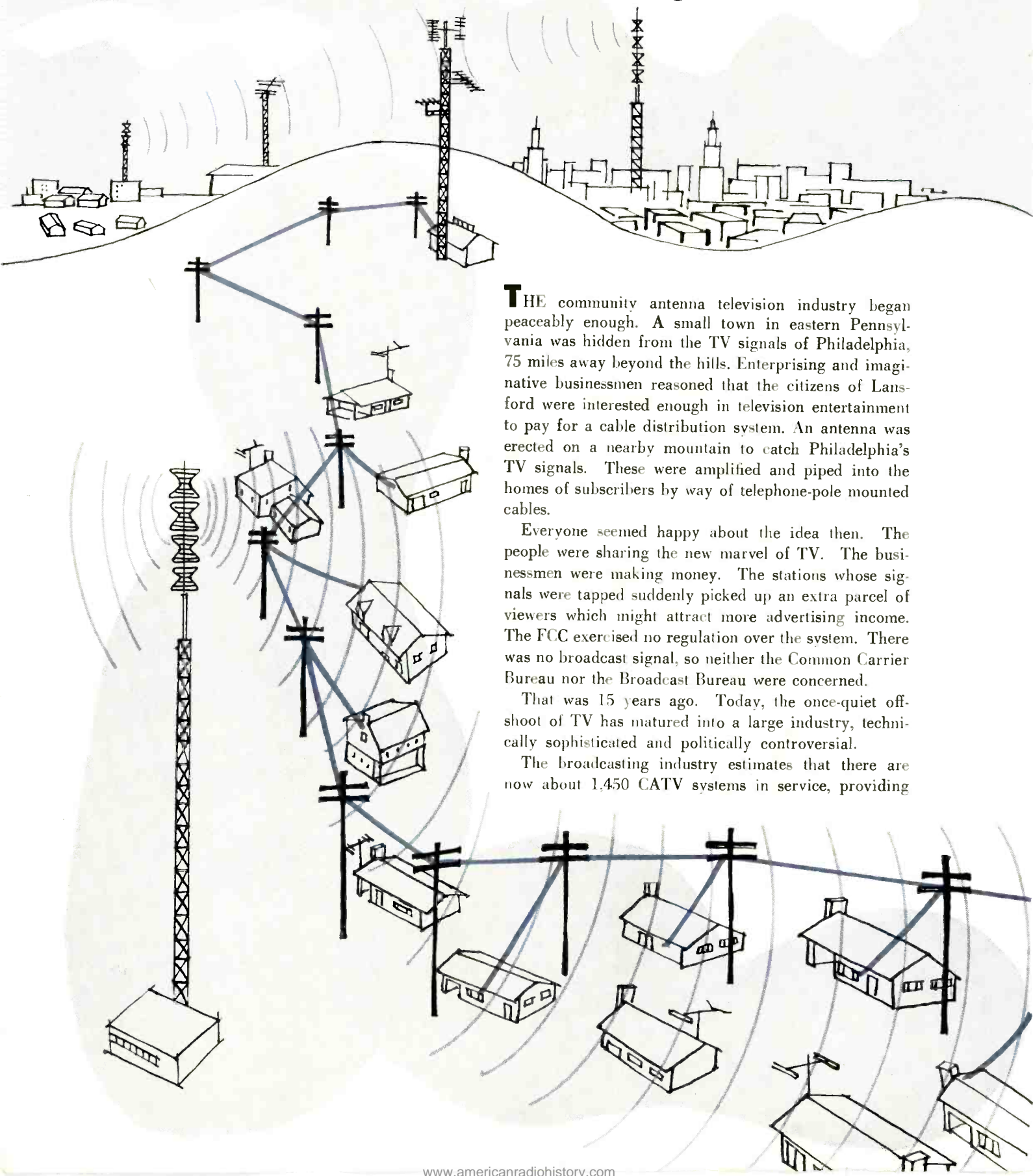
"I am sure the American people would welcome a chance to listen to the Soviet leaders on our television—as I would like the Soviet people to hear our leaders.

"I hope the new Soviet leaders can visit America so they can learn about this country at first hand."

Though commentators and cartoonists have poked fun at this "y'all come" approach to foreign diplomacy, there is much to be said for an increasing number of top-level contacts between Americans and Russians. Television offers a chance for the peoples of both nations to see the faces behind the masks and the hearts which beat on both sides of the Iron Curtain.

COMMUNITY ANTENNA TELEVISION

... a Broadcasting Maverick
suddenly comes of age



THE community antenna television industry began peaceably enough. A small town in eastern Pennsylvania was hidden from the TV signals of Philadelphia, 75 miles away beyond the hills. Enterprising and imaginative businessmen reasoned that the citizens of Lansford were interested enough in television entertainment to pay for a cable distribution system. An antenna was erected on a nearby mountain to catch Philadelphia's TV signals. These were amplified and piped into the homes of subscribers by way of telephone-pole mounted cables.

Everyone seemed happy about the idea then. The people were sharing the new marvel of TV. The businessmen were making money. The stations whose signals were tapped suddenly picked up an extra parcel of viewers which might attract more advertising income. The FCC exercised no regulation over the system. There was no broadcast signal, so neither the Common Carrier Bureau nor the Broadcast Bureau were concerned.

That was 15 years ago. Today, the once-quiet offshoot of TV has matured into a large industry, technically sophisticated and politically controversial.

The broadcasting industry estimates that there are now about 1,450 CATV systems in service, providing

TV programming to something around 5.2 million viewers in 48 states—about 3 per cent of the U. S. viewing audience.

This slice is expected to grow in a big way. In the past two years alone, CATV systems have added 44% more subscribers. Today, industry experts estimate there are 35 systems with over 5,000 subscribers, and one with more than 19,000.

With commercial success, competition for franchises controlled by state and local governments has grown intense. Twenty or more CATV hopefuls are battling each other and the concerned governments for a chance to provide service to 65 communities in Connecticut. Another CATV company has applied for permission to service 37 communities in Camden County, N. J.

An ambitious project to carry programs from Los Angeles to Amarillo, Texas, is in the talking stage and another could establish a New York-Chicago link, providing two-way traffic between these cities while serving intervening cities along the way.

It is obvious that the appeal of CATV service has spread far beyond remote communities without other TV programming. There are two reasons for this. CATV provides a greater choice of programming, and the quality of the viewing image produced by a cable system is superior to that carried directly by air to the average set's antenna. This second factor has become more important recently with the arrival of color TV, which demands a top-quality signal for comfortable viewing.

INCREASED channel choice has been given a boost by the addition of microwave links to CATV systems. With several of these, a system can pick up raw signals from a number of stations and feed them into the local area. This is as true in the larger cities as it is in rural areas. Today, the average CATV system carries four or five channels, and some offer FM station programs and stereo FM, too.

An Elmira, New York, system provides 11 channels: nine commercial channels, including all 7 of New York City's stations, one ETV channel, and one background music and weather channel.

All of this service is still virtually unregulated. The FCC, facing up to increasingly loud voices for control, has proposed partial regulation, and seems inevitably headed for control comparable to that exercised over the broadcasting industry.

The regulation issue is basically one of competition. Is it fair and reasonable to let CATV systems located in areas already served by local stations duplicate the programming they offer?

Right now, only a few CATV systems using microwave links are affected by Federal regulation. For microwave-served CATV systems operating within the grade A contour of local TV broadcasters, the FCC requires a measure of protection for local stations. The

CATV must offer the local station's signal to its subscribers if the local station requests it, and is prohibited from duplicating network programming carried by the local station within 15 days before and after the time the local presents it.

With the non-microwave-served CATVs—which make up about 80 per cent of all systems—not regulated at all, there is understandable conflict.

The lines of competitive battle are increasingly blurred by broadcasting industry investment in CATV.

LOCAL stations are normally in favor of getting a free ride from CATV for their signals beyond their transmitting contours, and opposed to the arrival of another cable system bringing competitive programs into their home territories. But some local stations are objecting strongly to back-yard CATV competition at the same time they are negotiating for purchase of cable systems in other areas of the country. A number of broadcasters have bought into the CATV business, and some CATV operators have become "air broadcasters."

Additional complications arise from the fact that the telephone companies, which have been renting pole space to the CATVs for cables, are going into the CATV business themselves.

The networks have mixed emotions. On the one hand, they like to have all the additional audience they can get through CATVs. On the other, they don't want to see local affiliates lose part of their audience to CATV competition. They also perceive the possibility in the distant future of brand new program sources appearing to serve a greatly-expanded CATV audience. If the CATV market size ever becomes a substantial percentage of the entire U. S. audience, national advertisers would likely develop an interest in footing the programming bill to reach the CATV viewers. The broadcasting networks are also taking steps to protect the copyright on their programs.

In December, CBS filed suit against one of the biggest CATV operators, for infringement on program copyrights. The network hopes to show that "a community antenna television system may not transmit a program without the permission of its copyright owners." CBS was joined by some owners of programs not copyrighted by the network itself. If CBS' suit is successful, the network is likely to refuse permission for program use to CATV systems competing with affiliates. For others, "only a nominal fee" will be charged, the network claims.

ABC, in response to the proposed FCC regulation of CATV, urged the government to limit CATV service to the area already within a station's grade B contour, and control both wired and microwave relay systems. This would, of course, be the death knell for CATV. Even the broadcasters felt this was too restrictive, and CATV industry spokesmen were predictably appalled.

But the traditional fight over CATV regulation is between broadcasters and CATV operators. The National Association of Broadcasters recently submitted to the FCC a detailed study of the harmful economic impact of cable TV on local stations. The study claimed that a 1000-home CATV system taps off an average of \$9400 a year in advertising revenue from competing local stations.

The CATV industry organization, the National Community Television Association, rejects these contentions flatly. Criticizing the NAB report, NCTA claims that the basis on which it was developed is theoretical—that there are actually no local television stations in the competitive situations used as the basis for the NAB conclusions. NCTA also surveyed the present business health of several TV stations which had earlier predicted severe losses from CATV competition, and says that none are out of business, and many have increased their advertising rates in the interim.

Despite the natural conflict, however, there has been agreement between broadcaster and CATV operator on one point. The regulations proposed last summer by the FCC won't do the job.

The Commission's proposed new rules would establish a Community Antenna Relay Service under the existing Broadcast Bureau. Authority would extend only to

microwave-fed CATV systems, as is the case with existing regulation. Microwave licensees would be required to prove that at least 50 per cent of the customers subscribing are "unrelated" or "unaffiliated" with CATV system ownership, and that usage of the customers, in terms of hours and channels, would absorb at least half of the total service available from the CATV.

Because only a small percentage of CATVs use microwave relay now, the regulation issue would by no means be solved by these rules.

The proposed regulations, according to the NAB, are "premature . . . inadequate and dangerous." In addition, none of the suggested rules goes far enough into "the basic question of an evaluation and determination of the role CATV is to play in the overall scheme of broadcasting" to satisfy the NAB.

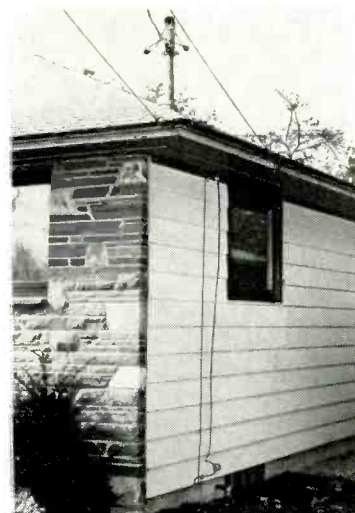
The NCTA said that adoption of the rules would work against public interest by stifling development of common carriers and CATV.

Even one Commissioner of the Federal Communications Commission—Robert E. Lee—has said the rules would not be satisfactory. Speaking at a recent industry conference, he called CATV "the most pressing" problem of the Commission. After long and hard thought about the problem, Lee said, he had concluded that the FCC "should take the giant step of assuming jurisdiction over CATV—both wired and over-the-air" and let the courts figure out whether the Commission had overstepped its constitutional authority.

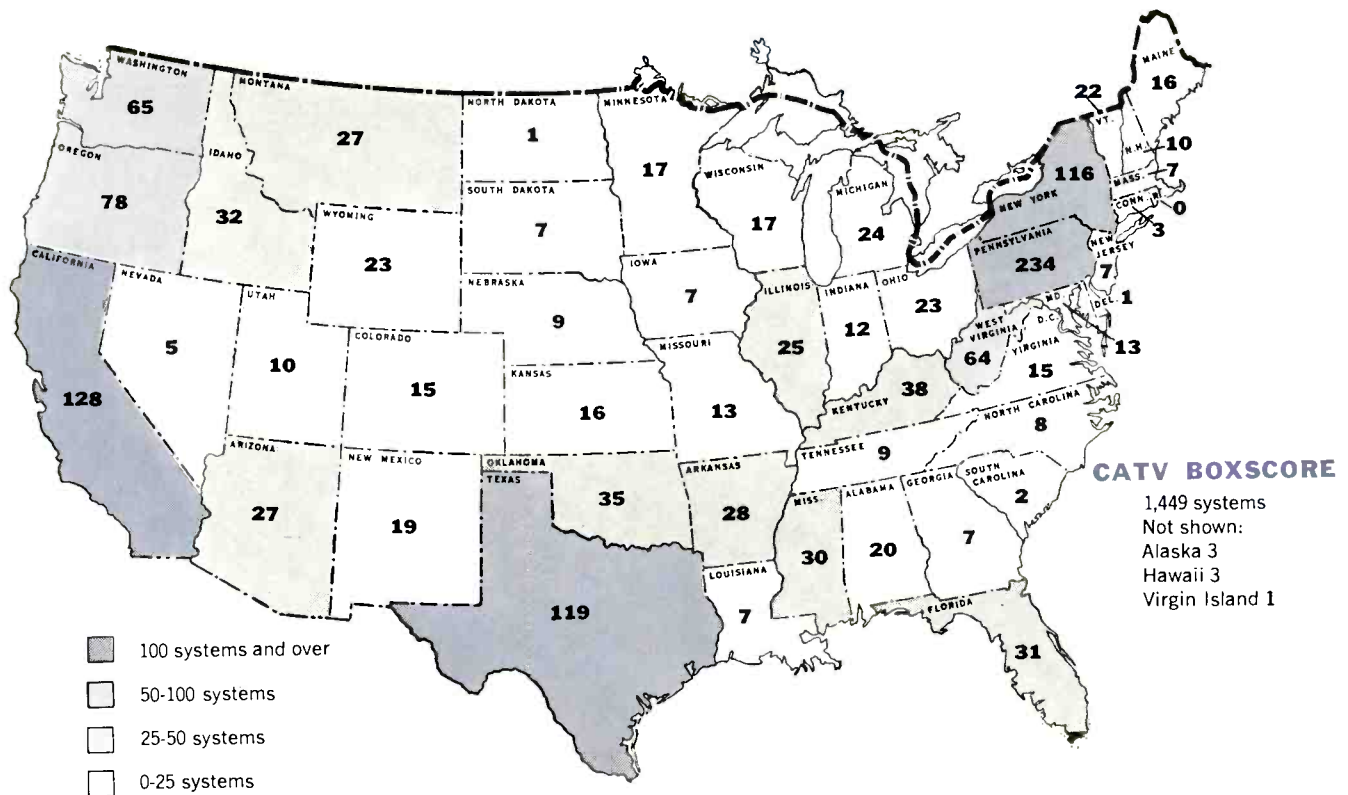
In the past, the FCC has officially stuck to the position that it doesn't have authority to regulate CATV without enabling legislation, and so far, Congress has



CATV installations on the utility pole and atop a client's residence.



THE WHERE AND HOW MANY OF CATV



not given this authority. Four attempts have been made to get a CATV regulation bill through Congress, all failures.

Broadcasters are not worried only about present competition. Although they may not like the idea of their program being picked up and rebroadcast in their own area, they are concerned about two ghosts of Christmas-future for CATV—pay TV and CATV-originated programming.

In almost every major industry discussion of CATV recently, these two spectres have materialized. Some of the talk was sparked by the recent voter referendum in California which killed, at least for a while, pay-TV in that state.

Historically, broadcasters have opposed pay-TV because of the fear that it will capture all of the best TV stars and events, leading advertising-supported broadcasting with limited choice.

Although CATV is already a kind of pay TV—with installation charges running from \$5 to \$30, and monthly costs averaging \$5-\$6—there are no charges for programs. Once the subscriber is hooked up, he gets everything piped through the cable. There are no coin-hungry black boxes on his cabinet, and no monthly bills for watching special events.

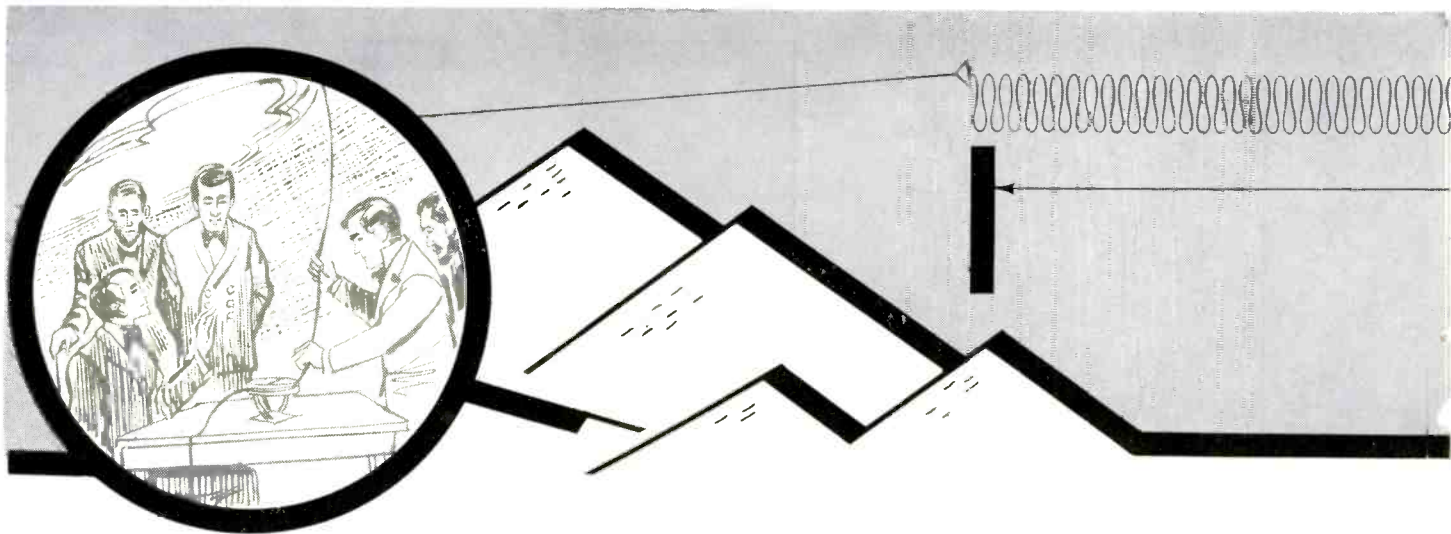
Technically, CATV could be converted into pay TV, and at least some CATV operators are thinking happy thoughts about the prospects. One manufacturer is already offering a conversion kit, to turn existing CATV

systems into pay-TV, but such conversion is normally costly. The bill for conversion is estimated by experts to run between 50 and 150 per cent of the initial cost of the CATV.

In addition to adding channels to the cable system and equipment in the subscriber's home for pay accounting, CATVs would need to finance some kind of program originating facilities, far more extensive than those now used by the few CATVs who do offer their own time and weather reports and FM music.

It is unlikely that very many CATV systems could develop the audience size necessary to justify the expenditure for conversion to pay TV. The situation is analogous to that of the broadcasting industry. Local stations, even in the largest metropolitan centers, must devote most of their air time to network programs. There simply isn't enough advertising income available to support full-scale local programming. Only nationally-produced and sponsored programs, from whatever source, appear to offer any hope for financially rewarding pay CATV. And if national advertisers were paying the bill, subscriber charges might become a relatively insignificant means of income.

Very soon, possibly within the next month or two, Congress will begin to take a sharp look at the entire broadcasting industry regulation picture, and CATV is just about at the top of the list of problems. It's too early to tell what form the regulation will take. It's inevitable that it will come.



DID AN AMERICAN REALLY INVENT RADIO?

Thirty years before Marconi's famous experiment, a totally unknown American inventor named Mahlon Loomis connected two wires in a rudimentary radio communication system and transmitted a signal 18 miles across the Blue Ridge Mountains of Virginia.

MARCONI invented radio, you say, or perhaps Alexander Popov, if you incline toward the Russian view of history? There's no question that Marconi successfully communicated by wireless telegraphy over a distance of $13\frac{3}{4}$ miles in 1896, and that he built a new industry upon the foundation of his work. His first message was sent just nine years after Heinrich Hertz defined the wave theory of electromagnetic radiation and paved the way.

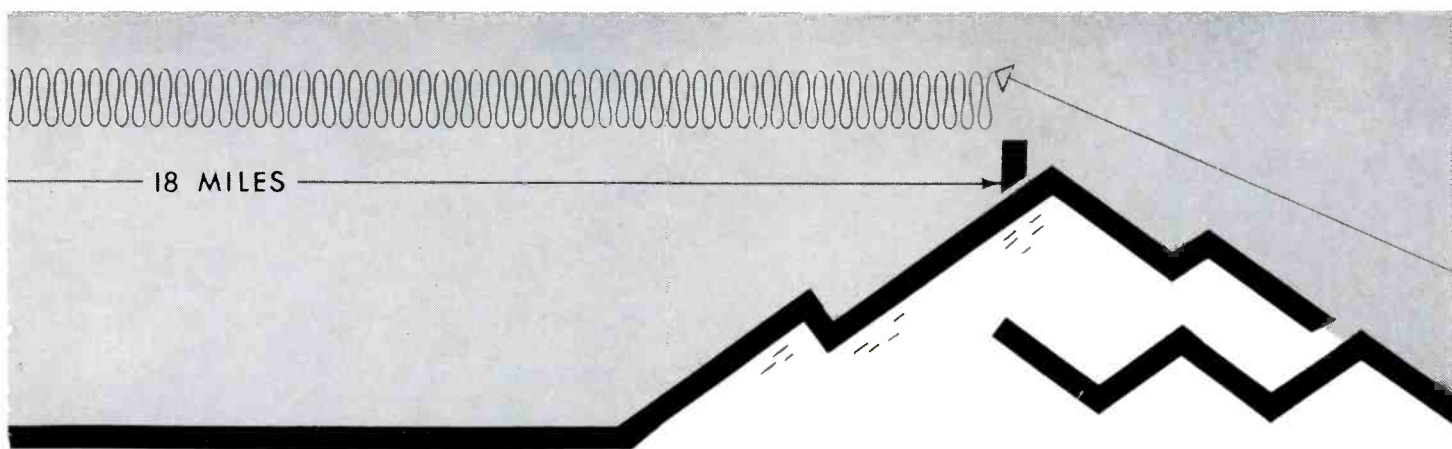
But 21 years before Hertz penned his conclusions, and almost 100 years ago (October, 1866), an American named Mahlon Loomis lofted two kites from peaks in Virginia's Blue Ridge mountains and used them to communicate by radio. Flying about 18 miles apart at the end of 600 feet of copper wire, the kites had small squares of copper wire gauze for antennas, and galvanometers at the ground for signal indicators. As witnesses hovered closely around the galvanometers at each site, the historical experiment began. Loomis recalled it this way:

"The day was clear and cool in the month of October, with breeze enough to hold the kites firmly at anchor when they were flown. Good connection was made with the ground by laying in a wet place a coil of wire one end of which was secured to the binding post of a galvanometer. The equipment and apparatus at both stations were exactly alike. The time pieces of both parties

having been set exactly alike, it was arranged that at precisely such an hour and minute the galvanometer at one station should be attached, or be in circuit with the ground and kite wires. At the opposite station the



DR. MAHLON LOOMIS as a young man, in a photograph from the Library of Congress collection.



AN INVENTOR'S ADVOCATE

Credit for most of the research for this article goes to Otis B. Young, director of atomic and capacitor research at Southern Illinois University, who wrote what is probably the only research article, until this one, about Mahlon Loomis. It appeared in the March 7, 1964, *Saturday Review of Literature*. Mr. Young is genuinely concerned that Loomis should take his rightful place in history. He has done a great amount of research into the files of the Patent Office and the Library of Congress, and into Loomis' family records, all of which has convinced him of the honor that should go to Loomis. He suggests that some form of official, public recognition be accorded to America's radio pioneer, and that no stone should be left unturned in an effort to find out more. He urges a commemoration of Loomis' pioneering experiment on the centennial anniversary—October, 1966.

ground wire being already fast to the galvanometer, three separate and deliberate half-minute connections were made with the kite wire and instruments. This deflected, or moved, the needle at the other station with the same vigor and precision as if it had been attached to an ordinary battery. After a lapse of five minutes, as previously arranged, the same performance was repeated with the same result until the third time. Then 15 minutes precisely were allowed to elapse, during which time the instrument at the first station was put in circuit with both wires while the opposite one was detached from its upper wire, thus reversing the arrangements at each station. At the expiration of the 15 minutes the messages or signals came in to the initial station, a perfect duplicate of those sent from it, as by previous arrangement. And although no 'transmitting key' was made use of nor any 'sounder' key to voice the messages, yet they were just as precise and distinct as any that ever sped over a wire. A solemn feeling seemed to be impressed upon those who witnessed the performance as if some grave mystery hovered there around that simple scene. . . ."

You'll notice that Loomis makes no mention of a

source for generating broadcast power. He didn't need it. Carrying the concept of ground-return wire telegraphy one step further, he substituted an air path for the telegrapher's single wire, and got a current to flow from the vast reservoir of electrons in the earth, instead of a battery.

You can take the word of some eminent authorities that Loomis' method will work, without tramping to the nearest mountain peaks with wired kites and galvanometers. Dr. Robert H. Marriott, first president of the Institute of Radio Engineers, wrote in an article in *Radio Broadcast* magazine in December, 1925, "The arrangement described by Loomis has worked for me many times."

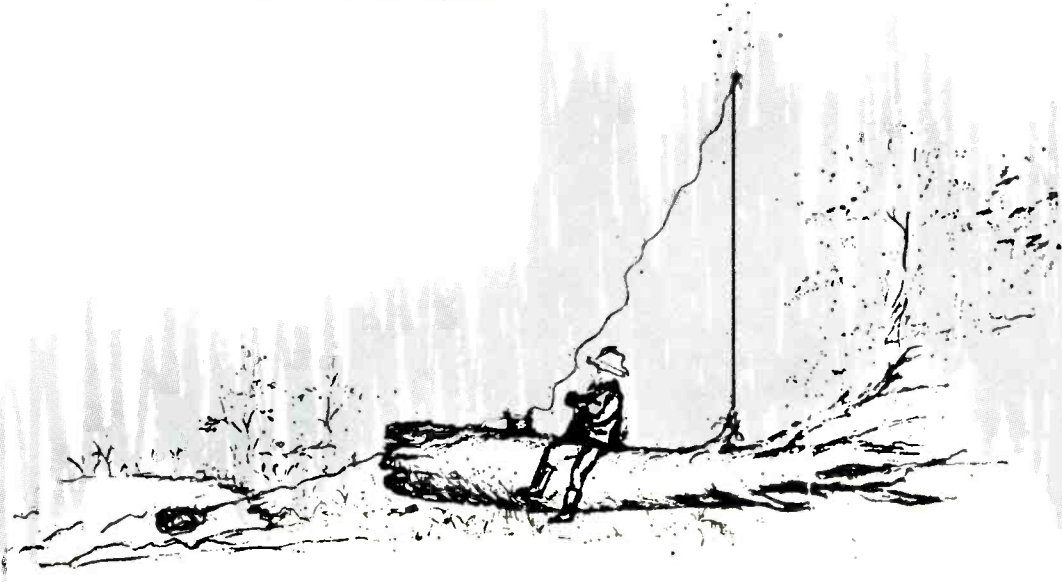
And a United States Army Signal Corps pamphlet, prepared by the Bureau of Standards back in May, 1921, depicts "the simplest apparatus for reception of radio waves," with a diagram showing a rig which is a dead ringer, in principle, with Loomis'.

Mahlon Loomis is unmentioned in the *World Almanac*, or the *Encyclopedia Britannica*, but he deserves an honored niche in the history of radio. There seems to be little doubt that he really is the first person—by many years—to ever transmit intelligent signals by electromagnetic radiation.

But his efforts to capitalize on his invention, and give the radio industry to civilization 30 years early, were plagued by bad luck. Despite authorization from Congress to form a major corporation, and several successful negotiations for financing, a national depression and the Chicago fire conspired to cut off the necessary money, and bury Mahlon's work in musty records.

The inventor was not a pitchman, promoter, or con man. He began his adult professional life as a dentist, and his inventive streak first showed up, naturally enough, in the field of dentistry.

At 28, Mahlon Loomis patented a process for making false teeth. A few years later, he became captivated by the possibilities of electricity, and devoted much of his



ONE OF THE SKETCHES drawn by Mahlon Loomis for his patent application shows the kite being tethered to a log, with the conductor connected to his rudimentary galvanometer. The conductor is then grounded in a pool of water. The observer checks his watch, with one eye on the galvanometer, looking for deflections.

spare time to the development of electrical communication.

In 1864, 32 months before the historic experiment, he described the evolution of his idea. "I have been for years trying to study out a process by which telegraphic communications may be made across the ocean without wires, and also from point to point on the earth, dispensing with wires."

By the time he applied for a U. S. Patent, Loomis had come to grips with the problem, explaining the idea in more detailed terms consistent with the scientific knowledge of his day. "What I claim as my invention," his application reads, "is the utilization of natural electricity from elevated points by connecting the opposite polarity of the celestial and terrestrial bodies of electricity at different points by suitable conductors, and, for telegraphic purposes, relying upon the disturbance produced in the two electro-opposite bodies (of the earth and atmosphere) by an interruption of the continuity of one of the conductors . . . and thus producing a circuit or communication between the two without an artificial battery or the further use of wires or cables to connect the cooperating stations."

The patent office gave its stamp of approval to the newness and usefulness of Loomis' idea in July, 1872, when his patent was granted.

Once he had proved his process, Loomis set himself to the task of commercially developing it, and enlisted support among respected national leaders and financiers.

In the small group of men which saw the galvanometer swing that October were U. S. Senator Samuel C. Pomeroy of Kansas and U. S. Representative John A.

Bingham of Ohio.

Five years later—in 1869—Rep. Bingham repaid the honor by introducing and pushing through the House a bill to incorporate the Loomis Aerial Telegraph Company so that it might sell stock for operating capital.

Earlier efforts to get a flat grant of \$50,000 from Congress had been pigeonholed in committee, and financing from Boston promoters, promised in 1868, fell through when the bottom dropped out of the stock market the following year.

Bad luck continued to plague Loomis' search for money. Another group of financiers offered \$20,000, in 1871, to help Loomis set up a commercial operation in the Rocky Mountains. They lost their funds in the great Chicago Fire.

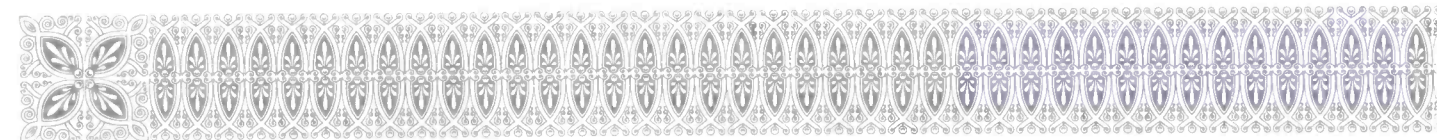
Although the bill sponsored by Rep. Bingham finally passed both houses of Congress in January 1873, and was signed by the President, the financial winter that followed the 1868 market crash wiped out any chance of selling stock in the newly-incorporated Loomis Aerial Telegraph Company.

As so often happens with the truly pioneering inventions—and inventors—commercial success, and with it world honor, waited for others.

There is no need to discredit Marconi's work. He most probably developed his method of wireless transmission independently, without knowledge of Loomis' work. But even if he was aware of the earlier pioneering efforts, Marconi had the ability and good fortune to be able to turn his inventiveness to commercial success.

The pity is that Loomis came so close, and missed the mark only because of an incredible streak of bad luck.

ON THE OPPOSITE PAGE is a reproduction of the specifications and claim for Loomis's patent, which was issued in 1872.



UNITED STATES PATENT OFFICE.

MAHLON LOOMIS, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN TELEGRAPHING.

Specification forming part of Letters Patent No. 129,971, dated July 30, 1872.

To all whom it may concern:

Be it known that I, MAHLON LOOMIS, dentist, of Washington, District of Columbia, have invented or discovered a new and improved Mode of Telegraphing and of Generating Light, Heat, and Motive-Power; and I do hereby declare that the following is a full description thereof.

The nature of my invention or discovery consists, in general terms, of utilizing natural electricity and establishing an electrical current or circuit for telegraphic and other purposes without the aid of wires, artificial batteries, or cables to form such electrical circuit, and yet communicate from one continent of the globe to another.

To enable others skilled in electrical science to make use of my discovery, I will proceed to describe the arrangements and mode of operation.

As in dispensing with the double wire, (which was first used in telegraphing,) and making use of but one, substituting the earth instead of a wire to form one-half the circuit, so I now dispense with both wires, using the earth as one-half the circuit and the continuous electrical element far above the earth's surface for the other part of the circuit. I also dispense with all artificial batteries, but use the free electricity of the atmosphere, co-operating with that of the earth, to supply the electrical dynamic force or current for telegraphing and for other useful purposes, such as light, heat, and motive power.

As atmospheric electricity is found more and more abundant when moisture, clouds, heated currents of air, and other dissipating influences are left below and a greater altitude attained, my plan is to seek as high an elevation as practicable on the tops of high mountains, and thus penetrate or establish electrical connection

with the atmospheric stratum or ocean overlying local disturbances. Upon these mountain-tops I erect suitable towers and apparatus to attract the electricity, or, in other words, to disturb the electrical equilibrium, and thus obtain a current of electricity, or shocks or pulsations, which traverse or disturb the positive electrical body of the atmosphere above and between two given points by communicating it to the negative electrical body in the earth below, to form the electrical circuit.

I deem it expedient to use an insulated wire or conductor as forming a part of the local apparatus and for conducting the electricity down to the foot of the mountain, or as far away as may be convenient for a telegraph-office, or to utilize it for other purposes.

I do not claim any new key-board nor any new alphabet or signals; I do not claim any new register or recording instrument; but

What I claim as my invention or discovery, and desire to secure by Letters Patent, is—

The utilization of natural electricity from elevated points by connecting the opposite polarity of the celestial and terrestrial bodies of electricity at different points by suitable conductors, and, for telegraphic purposes, relying upon the disturbance produced in the two electro-opposite bodies (of the earth and atmosphere) by an interruption of the continuity of one of the conductors from the electrical body being indicated upon its opposite or corresponding terminus, and thus producing a circuit or communication between the two without an artificial battery or the further use of wires or cables to connect the co-operating stations.

MAHLON LOOMIS.

Witnesses:

BOYD ELIOT,
O. C. WILSON.

'We'll Get That Job Done'



HUBERT HUMPHREY AT AFL-CIO LEGISLATIVE CONFERENCE

AT THIS YEAR'S AFL-CIO Legislative Conference, held in Washington D. C., January 11-14, Vice President-Elect Hubert H. Humphrey was the key speaker. In his speech, on the administration's legislative program, he covered many legislative goals that would benefit the American labor movement—unemployment compensation, fair labor standards, and the very important repeal of Section 14(b) of the Taft-Hartley Act.

In his speech, before the Legislative Conference, Humphrey said:

"And the one section in that law (the Taft-Hartley) that has caused the free American labor movement, the honorable labor movement, more trouble in its organization, that has worked to prevent effective organization, the one section that has been responsible for that is Section 14(b), and the President of the United States, in fulfillment of the Democratic Platform, stated in the State of the Union message that he will present to the Congress recommendations for the repeal of Section 14(b). He will do it at the time that it needs to be done. He will do it when we have the ways and the means and the votes to get the job done and with your help. Don't give up, just keep at it. I'll be doing my part; we'll get that job done."

This unfair, anti-labor section authorizes so-called "right-to-work" laws in the states. It is the most serious and dangerous anti-labor provision in this nation's labor relations laws. The attack on union security through Section 14(b) must be stopped by the 89th Congress.

State "right-to-work" laws are part of the right-wing, big-business, union-busting attack on the free labor movement in the United States. Professional union-baiters are promoting state "right-to-work" laws to weaken and to harass labor unions.

The exact legislative form for repeal of this section has yet to be worked out. The legal effect, however, will be to make inoperative "right-to-work" laws that now exist in some 20 states. The proposed legislation will again give Federal law control in the negotiation of union shop contracts, rather than permitting states to bar the union shop through state legislation.

The repeal would not affect intrastate commerce, which would still come under state legislation. However, the vast bulk of today's commerce in interstate in nature and so would come under the Federal pre-emption doctrine. With Section 14(b) repealed, interstate business would revert to Taft-Hartley Section 8(a)(3), which specifically permits the negotiation of the union shop.

The AFL-CIO and its affiliated organizations have fought more than 40 "right-to-work" proposals in state legislatures since 1958. The 20 states with "right-to-work" laws currently in effect are:

Alabama, Arizona, Arkansas, Florida, Georgia, Indiana, Iowa, Kansas, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia and Wyoming.

As indicated in a recent release by the AFL-CIO Legislative Department, a "right-to-work" law does not give anyone the right to hold a job. It does not create a single job. It does not help a single unemployed worker. On the contrary, a "right-to-work" law weakens the power of workers to win better wages and working conditions through collective bargaining.

TAFT-HARTLEY permits various restricted forms of union security. But Section 14(b) permits state "right-to-work" laws to outlaw these same forms of union security. This is inconsistent and contrary to a basic principle of our American legal system, the supremacy of Federal law.

Of President Lyndon B. Johnson's "State of the Union" message, AFL-CIO President George Meany issued a statement saying:

"The President has presented to the Congress a sound, constructive program to meet the most pressing needs of the nation. This program in many respects parallels the legislative aims of the AFL-CIO and merits the support of working people and of all American citizens.

"We pledge the full cooperation of the AFL-CIO in the effort to translate these goals into legislation."

Employers Urged to Wake To Union-Shop Benefits

Employers who try to weaken unions through so-called "right-to-work" laws are victims of "one of the great fallacies of our time," AFL-CIO Sec.-Treas. William F. Schnitzler has warned.

It's harder, not easier, for employers to deal with a weak union, Schnitzler told the Lehigh Valley Chapter of the Society for Advancement of Management in an address delivered to the Society's recent meeting in Allentown, Pa.

The AFL-CIO spokesman emphasized that a union shop is "good for the employer" as well as for workers. The "most progress" towards joint union-management cooperation on mutual problems has been made in industries and trades where unions are strong and secure, Schnitzler pointed out.

He told the management group: "A strong union, secure against employer subversion, can afford to be statesmanlike. It can afford to take the broad view . . . to gamble on the present in the expectation of a better future."

Apart from the element of self-interest of employers, Schnitzler pointed out, so-called "right-to-work" laws are bad on a number of counts.

They interfere with freedom of contract, he said. They infringe on the rights of a majority of workers and hamstring the operation of the democratic process. They are weapons used against labor by states which have built their economies on low wages.

The AFL-CIO Secretary-Treasurer termed it surprising that the proposals to ban the union shop should be seriously discussed in Pennsylvania. Generally, he said, "what is known as 'right-to-work' has been most popular where there are the fewest organized workers and the fewest employers having union contracts."

"In short, the less you know about unions the more you lean toward 'right-to-work.'"

NALCREST Offers Great Chance for Union Retirees

The National Association of Letter Carriers has announced that it is now making its \$4½ million retirement community, NALCREST, in Lake Wales, Fla., available to all retired trade unionists and their families, and to the widows of all retired trade unionists.

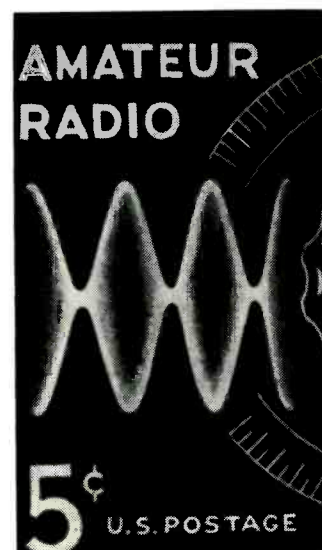
Jerome J. Keating, president of the NALC, said that the original idea of NALCREST was to provide low-cost luxury for retired letter carriers only. However, surveys by the NALC showed that the need for inexpensive retirement facilities is almost universal, so the letter carriers decided to share their community with retirees throughout the labor movement.

STAMP HONORS HAM OPERATORS

A 5-cent stamp honoring the nation's 250,000 amateur radio operators was placed on sale at Anchorage, Alaska, December 15, 1964.

It was in Alaska that the "hams" wrote another chapter in a long public service record by maintaining communications following the recent earthquake. The Amateur Radio commemorative stamp falls on the 50th anniversary of the founding of the American Radio Relay League.

This purple vertical stamp was designed by Emil J. Willett of Hartford, Conn. His stylized design combines a radio broadcast wave with a portion of a radio dial.



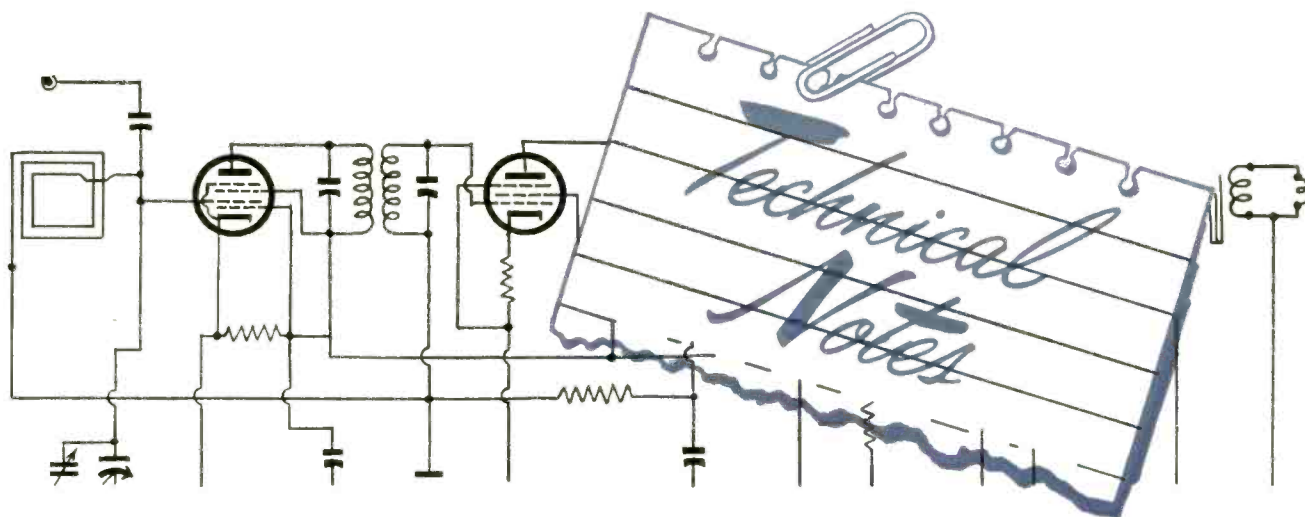
NALCREST, located on the shores of beautiful Lake We-Oh-Ya-Kapka, in central Florida, is a fully-equipped, self-sufficient community of 500 garden apartments plus modern and commodious recreation areas and a modern shopping center of its own. It is a non-profit enterprise. One-bedroom apartments rent for less than \$75 a month. All apartments are air-conditioned; all have an extra screened-in "Florida Sun Porch" for indoor-outdoor living. The rental cost includes all utilities, except electricity (which averages less than \$12 a month).

The NALC's retirement community is located in the midst of Florida's fabulous citrus belt. There is magnificent fishing in Lake We-Oh-Ya-Kapka, as well as in the lagoons which interlace the 150-acre project. There is a 1,300-foot white sand private beach, as well as a large and modern swimming pool with cabanas. Boats are available to all residents and, like all the other recreational facilities at NALCREST, they are free of charge.

The town center includes a well-stocked, reasonably priced super market, a 500-seat theatre, a barber shop, beauty shop, restaurant, laundromat, library and post office. The hobby room is filled with all the latest equipment, including power tools.

There is also a completely modern dispensary, with a nurse on duty 24 hours a day. The NALCREST doctor calls every morning and keeps in touch with the community constantly through two-way radio. All drugs at NALCREST are sold at cost. This means that a "shot" which would normally cost \$5 elsewhere may cost as little as one dollar.

Anyone interested in learning more about this unique retirement community should write to The NALCREST Foundation, 100 Indiana Ave., N. W., Washington, D. C. 20001.



AUTO-ANTENNAE STUDY

Automobile stylists are making their move to get the familiar auto radio antenna out of the picture. Purists in design, the stylists consider the traditional "buggy-whip" antenna "an eyesore."

When auto radio first came on the market, autos had running boards and the first antennas were suspended under the running boards, where they were particularly effective in picking up ground signals. Later, as running boards disappeared, the cowl antenna was developed, later moved to the rear fenders in many instances.

Now, with intense competition in design among auto producers (the familiar front vent window may be on its way out) the move is to do away with the telescoping antenna altogether. Its function may be taken over by such things as a windshield coaming which is a disguised antenna or an insulated trunk lid which will serve. Another possibility: a return to an antenna which will be strung somewhere underneath . . . like antennas started out back in the late 1920s!

SORRY, WRONG NUMBER

Computers *do* have their limitations. We heard recently about a computer mixup which kept scores of homeowners without electricity for hours. The computing unit at the generating station, according to human-calculated plan, dialed a phone number when its generator quit and began to transmit the programmed message—*generator out*.

At the other end of the line another computer-assisted, unmanned system echoed back—*I'm sorry, you have the wrong number*—over and over again.

All of this might have gone on for days except for the fact that some humans began to feel a need for light and power and sent a man to investigate. The troubleshooter broke in on the unproductive private computer conversation and put the electronic talkers back to work . . . Eventually the humans got their electricity flowing again.

CONDUCTING PLASTIC

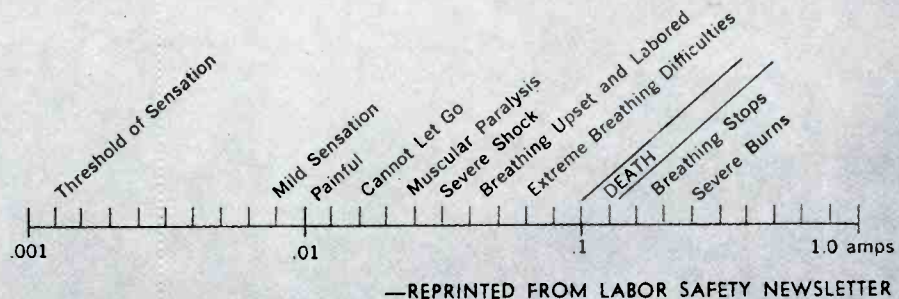
A new material developed by General Electric may make it possible to replace the soldering iron with a squeeze tube—at least for limited applications. The material is a semi-conducting plastic, with forecast use in the manufacture of printed circuits as well as for an adhesive replacement for wiring soldering. The material is not a good conductor, however, being about halfway between common insulators and common conductors, so the horizons appear limited at this stage.

HONORED BY NASA



Bernard P. Miller, Ranger Project Manager of the Radio Corporation of America, who received the 1964 Public Service Award of the National Aeronautics and Space Administration (NASA) for work on the TV camera system used in the historic Ranger 7 flight to the moon in July, 1964. The system sent back to earth more than 4,000 closeup pictures of the lunar surface.

Research seems to indicate that as little as 50 volts, encountered under "optimum" conditions for transmission, can be deadly. The graph rule at right indicates the split-second activity between contact and death.



WHAT IT TAKES TO KILL

Can you be electrocuted by ordinary 110-volt house current? You definitely can, and many people die this way each year despite the fact that thousands of people are able to shrug off the shocks they receive from such house current.

Sometimes the relatively small voltage of house current causes the deadly "fibrillation" of the human heart which results in death unless there is an electrical defibrillator handy (as there seldom is in cases of home-electrocutions).

Research seems to indicate that as little as 50 volts, encountered under optimum conditions for transmission, can be deadly. On the other hand, many people have recovered from the jolt of a 750-volt charge.

The electrical worker who doesn't bother to cut off the power or pull a fuse on the line he is working with can be courting a very real danger. Some of them feel they are "man enough" to take a 110-volt shock. Actually, there are many such persons. But every now and then a case comes along where one individual only thought he was immune, with fatal results!

Fortunately, most people don't make very good conductors of electricity and the surface of their skin does not transmit the current readily. If, however, the skin is wet, nature's built-in resistance is lowered and larger amounts of electrical current course through the body. With proper grounding, a surprisingly little amperage is needed to kill. The table above was prepared by the Labor Safety Newsletter of the National Safety Council. Remember that house outlets are usually wired for a minimum of 15 amperes—more than enough capacity to be hazardous.

SPLIT-SECOND TIME CHANGE

The National Bureau of Standards and the U. S. Naval Observatory have jointly announced that the clocks of NBS radio stations WWV and WWVH and Navy station NBA, Canal Zone; NPG, San Francisco, California; NPM, Lualualei, Hawaii; NPN, Guam, Mariana Islands; and NSS, Annapolis, Md., were retarded 100 milliseconds at 0000 hours UT on January 1, 1965.

The adjustment is necessary because of changes in the speed of rotation of the earth, as determined by astronomical observation. These adjustments are in accordance with an international agreement whereby Universal Time signals are synchronized to about 1 millisecond and are also maintained within about 100 milliseconds of the Universal Time scale, UT2. Participating countries include Argentina, Australia, Canada, Czechoslovakia, France, Italy, Japan, South Africa, Switzerland, United Kingdom, and the United States.

RADAR TEST FOR EINSTEIN'S THEORY

A Massachusetts Institute of Technology scientist has proposed use of radar pulses bounced off one of our solar system's inside planets, and through the sun's gravitational field, to test Einstein's theory of relativity. Back in 1916, Einstein postulated the classical theory that the speed of light or radio waves will vary with the strength of a gravitational field through which they pass.

The scientist, Irwin I. Shapiro, suggests use of the brand-new "Haystack" radar research facility of the Lincoln Laboratory, MIT, where he works. It is the largest antenna system capable of operating at frequencies useful for the relativity theory test.

After pulses are sent to the target planet—either Mercury or Venus, depending on their position with relation to the earth when the experiment is conducted—the time return of the echoes would be measured accurately. If Einstein is right, delays of as much as one-fifth of a millisecond could be induced by the gravitational drag of the sun on the radar waves.

NON-UNION PRODUCTS

Cigarettes: Camel, Winston, Salem, Tempo
 Frozen Foods: Banquet
 Ladies' Blouses: Judy Bond
 Automobile Tires: Lee of Conshohocken
 Whiskies: Old Fitzgerald, Old Elk, W. L. Weller, Cabin Still
 Furniture: Jamestown Sterling



STATION BREAKS

NOTED RADIOMAN PASSES

George Stam Sronce, a member of Local Union No. 202 and well-known as the "Dean of the Sacramento radio industry," passed away on November 11, 1964, after a long illness.

In 1927, he assisted in the construction of KMJ, Fresno, and until the time of his death at age 62 had been continuously active in the radio field. In 1929, he received one of the first commercial radio operator's licenses issued. In 1930, he helped build KFBK in Sacramento and was named the station's chief engineer in 1943.

Active in Boy Scout and civic work, he was a registered professional engineer, belonged to the IRE and the AIEE and, upon the merger of those organizations, was a senior member of the IEE. He joined IBEW L. U. 340 in mid-1939, transferred to L.U. 1245 in 1944, and to L.U. 202 in 1947.

TAX REPEAL EFFORT

The Electronic Industries Association has asked the Treasury Department to urge legislative repeal of the manufacturers' excise tax on radio and television receivers, phonographs and their components.

The views of the association's Consumer Products Division were set forth December 22 during a conference with officials of the Treasury Department, staff members of the Joint Congressional Committee on Internal Revenue Taxation, and members of the division's Executive Committee.

Mr. Secrest said the association, besides seeking complete repeal of the excise tax "at the earliest possible date," urged the Treasury Department to recommend that Congress enact legislation providing for floor stock refunds of excise levies paid on radio and TV sets and phonographs already off the production line to prevent any lull in sales while the proposal is being considered by Congress.

Similarly, EIA asked in a separate suggestion that the Treasury Department urge Congress to authorize income tax credits to consumers who have purchased taxable sets and components retailing for the substantial price of \$100 or more.

EIA suggested that the House Ways and Means Committee announce as early as possible its tentative decision to allow floor stock refunds for wholesalers and retailers and income tax credits for consumers effective after the date of the announcement.

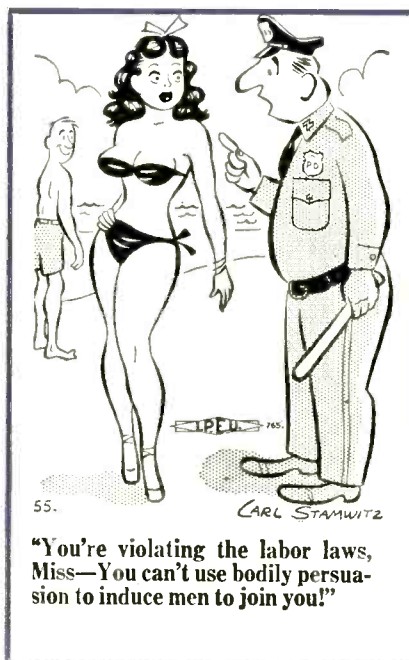
The association noted that three government agencies—the Federal Communications Commission, the Department of Commerce and the Department of Health, Education and Welfare—supported EIA's plea for excise tax relief. The IBEW has taken a similar position.

SAFETY AWARD TO I.B.E.W.

The winners of the 1963 National Safety Council Labor Conference awards for outstanding efforts in promoting employee safety were made near the close of 1964 at the 52nd Annual National Safety Congress and Exposition in Chicago.

The Award of Honor was bestowed on the IBEW for the Brotherhood's outstanding efforts in promoting safety. Many other lesser awards were given to other International and National labor organizations,

LAST LAUGH



Technician-Engineer