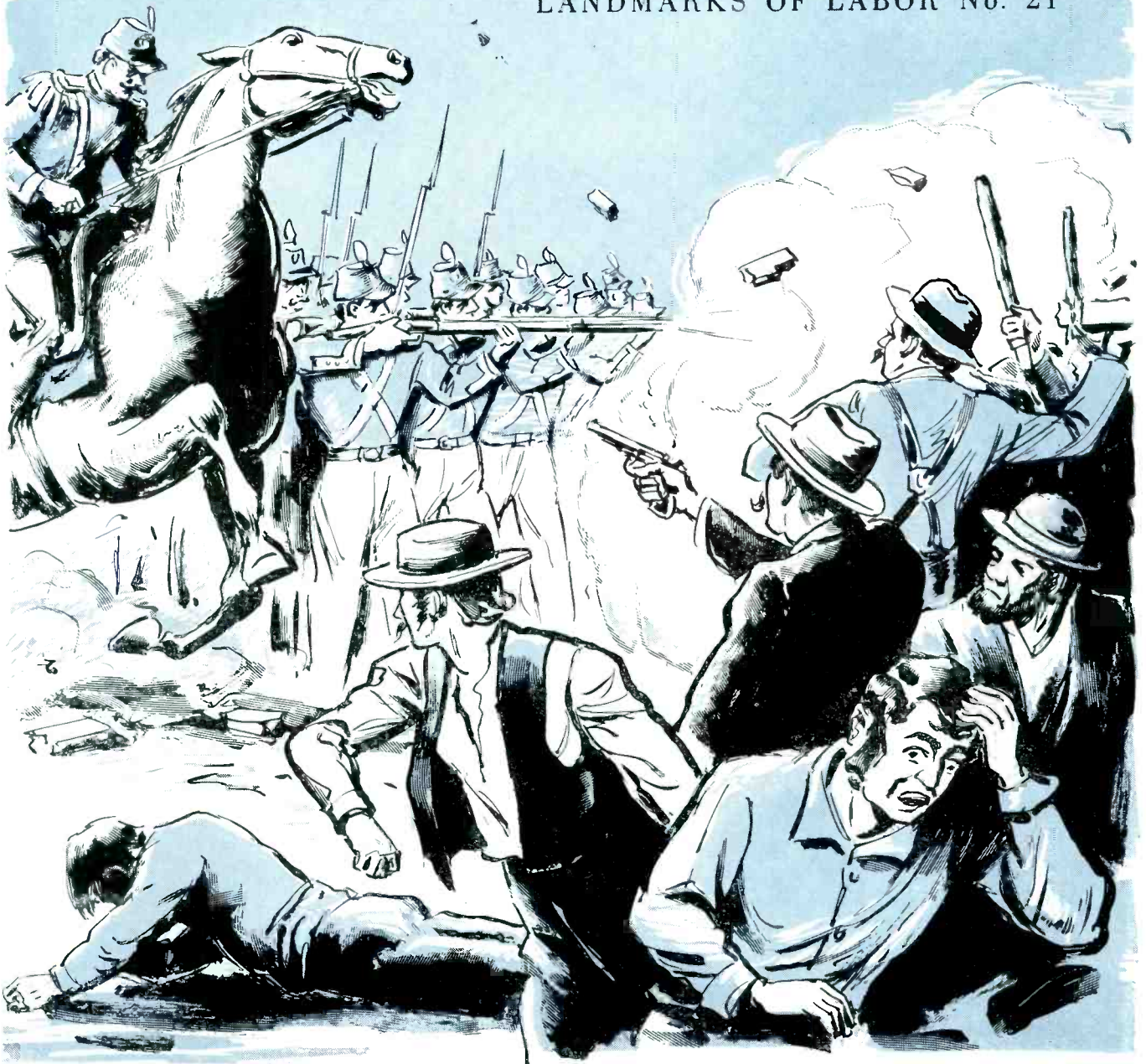


TECHNICIAN ENGINEER

FEBRUARY, 1961

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

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS — AFL-CIO



THE RAILROAD UPRISINGS OF 1877

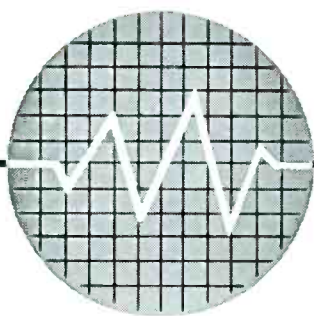
The last two weeks of July 1877 were bloody ones marked by railroad uprisings which extended from Baltimore to St. Louis. This year, 1877, was the trough of a depression and a time of severe wage cuts on the railroads. With low pay to the workers despite high dividends to the stockholders, the working people had reached the end of their economic rope.

Resistance to pay cuts took the form of strikes to such an extent that traffic was severely tied up and even state militia units could not cope with the strikers. For the first time, Federal troops had to be called out to quell disorders. The strikers

aroused great public sympathy on the part of farmers and other working people and even state troops.

The strikes were finally brought under control after considerable riot and bloodshed, but the two weeks left their imprint. Historians say a "new spirit of solidarity" on the part of the working people was born. Some of the railroad unions which had been primarily fraternal benefit groups assumed trade union functions including collective bargaining. The casualties were many, but the lasting impact might well be called a landmark of labor.

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TECHNICIAN ENGINEER

VOL. 10 NO. 2

ALBERT O. HARDY, Editor

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<i>the cover</i>	<i>Transmitter engineer Jim Raby, IBEW member of Local 202, San Francisco, on duty at the KTVU transmitter. A story about the KTVU operations in the San Francisco Bay area will be found elsewhere in this issue.</i>	
<i>index</i>	<i>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 1959 figures: December, 1959—125.9, December, 1960—127.5</i>	

COMMENTARY

Mr. James M. Landis' report to President-elect Kennedy has been given considerable space in the press and needs but little comment here. One of the chief interests of the IBEW is in that part of the Report which deals with the FCC.

The Chairman of the Subcommittee on Administrative Practice and Procedure, U. S. Senate Committee on the Judiciary, the Hon. John A. Carroll, requested it be printed so as to be readily available to the members of the Senate and the House. Thus, together with its public readership, the Report has become comparable to a "best seller"—at least, on the Washington scene.

The very first few sentences of comment about the

Commission are particularly shocking. They are also sad commentary on the state of affairs at an administrative agency of the Federal government which is presumably the watchdog of the public interest, convenience and necessity. The Report states: "The Federal Communications Commission presents a somewhat extraordinary spectacle. Despite considerable technical excellence on the part of its staff, the Commission has drifted, vacillated and stalled in almost every major area. It seems incapable of policy planning, of disposing within a reasonable period of time the business before it, of fashioning procedures that are effective to deal with its problems."

About all we can add to this is a prayerful "Amen."



BAY AREA'S TOP INDEPENDENT

On a clear, fog free evening high atop Television Peak KTVU's engineers can see not only the sparkling lights of San Francisco, but millions more across the Bay in Oakland, Richmond, Berkeley and other Bay Area communities. The photograph was taken by KTVU artist Dick Weise. The ribbon of lights crossing the bay is the San Francisco-Oakland Bay Bridge. Downtown San Francisco is at the far left. San Francisco International Airport is at lower right.

Members of Local 202 Clock Up New Achievements

KTVU, San Francisco-Oakland, became the nation's top rated independent station in America's major markets, according to the September American Research Bureau studies on station share of audience.

It is a remarkable achievement for KTVU, which has been on the air for little more than 30 months, but particularly impressive in that the San Francisco area, prior to KTVU's premiere in 1958, had been served for nine years by three network affiliates.

William D. Pabst, general manager of KTVU, has guided the program policies of the station since its inception and it is these policies that have developed for KTVU such a loyal audience.

The KTVU Channel 2 transmitter site atop Mount San Bruno, San Francisco.



With a heavy emphasis upon local programs and local personalities, KTVU has also pioneered year-round coverage of major sporting events.

KTVU's engineering crew of IBEW Local 202 members, under the direction of Chief Engineer Bob Arne and studio supervisor Ted Bjerke, continues to clock up new achievements themselves in difficult remote pickups and in remote telecast frequency.

In recent weeks, the KTVU crew has originated shows from aboard an aircraft carrier, atop San Francisco's famed Coit Tower, San Francisco International Airport, Fleishacker Zoo, as well as the more traditional news and sports locations.

Studio originations—live and tape—have given KTVU an edge in production knowhow because of the station's quantity of local shows. A daily studio schedule might include two children's shows (one hour each), two news shows, a public affairs presentation, a variety show, an amateur hour, a western music show, and a bowling match.

For the bowling show ("The Ralph Tucker Bowling Show"), KTVU's studio A is set up with a regulation 40-foot Brunswick alley, complete except for an automatic pinsetter. It is used to demonstrate techniques for better style and coordination.

While a bowling alley in a television station is somewhat of a rarity, KTVU's enthusiasm for local originations somewhat lessens the unique quality of a bowling alley around the San Francisco television industry. KTVU has recently produced a symphony program with the full 85-piece orchestra in the same studio—another "first."

Going from one extreme to another, the station's pet show ("Pet Life") recently made a wire service news copy when it presented a live "monkey wedding," featuring a Simian bride and groom with attendants, plus 25 monkey and chimp guests.

News plays an important part in KTVU's local identity and KTVU film cameras are a familiar sight whenever news is being made. The station shortly will expand its news coverage by a full half-hour daily. Under the supervision of news editor Leslie A. Nichols, the KTVU news department also produces the station's weekly "big public affairs" show, "Editor's Forum" in which all sorts of local problems are investigated and aired. The program uses guest experts from the top universities surrounding the San Francisco Bay Area—University of California, Stanford University, University of San Francisco, Mills College, San Francisco State College, etc.

Currently into its third full season of live collegiate basketball coverage, KTVU also carries a full schedule of professional and collegiate football, spring sports, roller derby and other team and spectator attractions.

From western music to symphonic presentations, from children's shows to Shakespeare, from on-the-spot



KTVU, Channel 2 in San Francisco, is located in Jack London Square—named for one of America's most-popular adventure story writers.

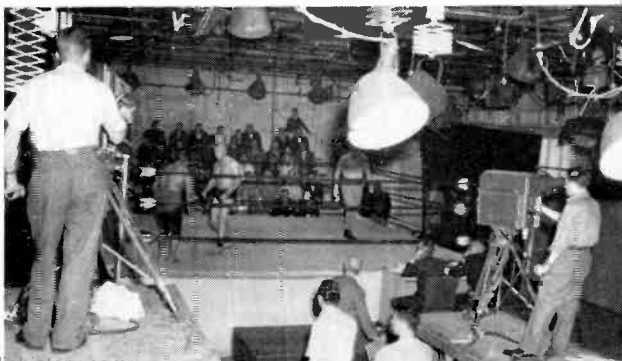


A portion of the set used for the western variety show—the Black Jack Wayne Show. The set is a permanent one in Studio A.



Above: Captain Satellite, one of the station's daily children's shows get a special treat—four cameras.

Below: Live studio wrestling originates from Studio A each Friday evening. The regulation-size ring must be moved into place in 21 minutes.





MONKEY BUSINESS HERE. The Saturday afternoon "Pet Life" program recently featured a monkey "wedding." The bride and groom invited 25 of their Simian guests to the studio, along with their owners. Needless to say, the KTVU crew shortly knew what was meant by a barrel full of monkeys!

BAY AREA'S TOP INDEPENDENT

Continued from preceding page

news coverage to 2,000-mile distant sports pickups of local teams on the road, KTVU has balanced its programming to make its total weekly cumulative audience virtually the entire Bay Area.

In addition to putting emphasis on local people and personalities, KTVU also presents live from its studios the weekly "Ben Alexander Show," featuring the network star in a local variety format. Alexander flies to San Francisco for the show every two weeks, recording one show on videotape and doing another live. The show, with growing ratings, has a studio audience—and it is currently on a "standing room only" basis up to four shows in advance.

Balancing its local originations with the best syndicated products, KTVU has achieved equal success with the WNTA "The Play of the Week" series.

By policy, KTVU steps forward in controversial issues to offer a voice to both sides. And in a public service nature, it presents a weekly—and high-rated—informational show on health, "Doctor's News Conference." The station permits the physicians to discuss any subject—nothing has been taboo—along medical lines. And, to date, KTVU has received only a few isolated complaints for the presentation of such topics as abortion, birth control, hypnosis, frigidity, and venereal disease.

An active station, with hard working personnel, KTVU sets for itself one high standard in production: "If it's worth doing, do it right!"

William Pabst,
general manager,
left;

Bob Arne,
chief engineer,
right.



Ted Bjerke,
studio supervisor,
works at his desk.



Leslie Nichols,
news editor, hosts
nightly local live
and film news
program. He is
host-producer of
"Editor's Forum,"
a public affairs
series.



Technician-Engineer

Fair Labor Standards Act Amendment Would Keep Many in Overtime Morass

One more attempt to clip and restrain Administration attempts to broaden act

More than 20 years have passed since Congress enacted the Fair Labor Standards Act in 1938 to provide a modest floor under wages and an equally modest ceiling over hours.

Now, after eight years of doing nothing about the situation under the

Eisenhower Administration, President John F. Kennedy has called on Congress to extend protection of the Act to 4.3 million additional workers and to raise the minimum wages by steps to \$1.25 an hour.

Since the original bill was intro-

duced, many amendments have been tacked to it on behalf of special interests. They do not say that all lollipop merchants with one leg should be exempt but they *do* intend to water down the original proposal so drastically that it will do little to alleviate the depressed conditions of millions of American workers.

One amendment, introduced by Rep. Thomas G. Abernathy of Mississippi, would exclude thousands of radio and TV station employees from the overtime ceiling of the bill and leave them no Federal protection from oppressive work schedules.

H.R. 2746 should be roundly condemned by all IBEW members . . . in the most effective manner . . . by letters to Congressmen urging its defeat.

Last year a Democratic-sponsored bill to increase the Federal minimum wage (S. 1046) was approved and sent to the Senate June 22 by the Labor Committee. This bill, too, included an amendment granting exemption from overtime requirements to certain stations in marketing areas of fewer than 50,000 persons.

Another bill in the House (H.R. 12677) would have exempted radio-TV stations from overtime provisions in cities of less than 100,000. The House exemption was "to provide relief" to small market stations, except where the boundaries of the market are located within the standard metropolitan area of more than 100,000 population.

These bills went through both Houses but were held up in a joint committee assigned to prepare a combined bill. Last year, the entire bill was expected to be vetoed.

Time will tell what happens to H.R. 2746 and similar bills in this session of Congress.

87TH CONGRESS
1ST SESSION

H. R. 2746

IN THE HOUSE OF REPRESENTATIVES

JANUARY 16, 1961

MR. ABERNETHY introduced the following bill; which was referred to the Committee on Education and Labor

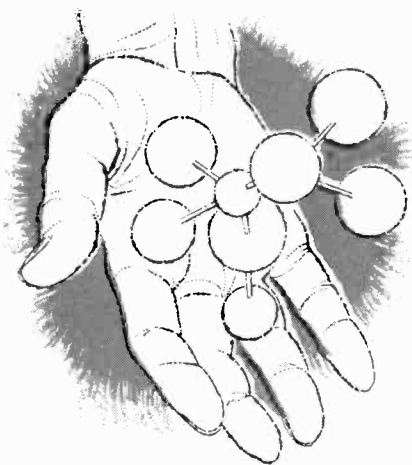
A BILL

To amend the Fair Labor Standards Act of 1938, to exempt employees of certain radio and television stations from the maximum hour provisions thereof.

- 1 *Be it enacted by the Senate and House of Representa-*
- 2 *tives of the United States of America in Congress assembled,*
- 3 That section 13 (b) of the Fair Labor Standards Act of
- 4 1938 is amended by inserting before the period at the end
- 5 thereof the following: "; or (6) any employee employed
- 6 by a radio or television broadcast station which is located in
- 7 a city, town, or other political subdivision which is not a
- 8 part of a standard metropolitan area as determined by the
- 9 latest available United States census of population, pre-
- 10 pared by the United States Bureau of the Census."

I

A REPRODUCTION OF THE ONE-PAGE HOUSE BILL



*Weird happenings found
in the world of supercold*

THE MOLECULES ALMOST STAND STILL

TEMPERATURES much lower than any recorded in the polar regions are produced daily in American laboratories.

The readings, some within a thousandth of a degree of absolute zero (459.72 degrees below zero Fahrenheit), are created by scientists working in a new field, cryogenics. In comparison, Antarctica's coldest temperature—a minus 125.3 degrees reported by Russians at their Vostok base in 1958—may be likened to a heat wave in an equatorial jungle.

At supercold temperatures, strange things happen. Rubber shatters like glass. Lead rings like a bell when struck. Air freezes into a solid block. Helium, normally a gas, becomes a liquid that oozes up the sides of its container in uncanny defiance of gravity.

The baffling behavior of materials at low temperatures has led to the establishment of cryogenics as a scientific specialty, the National Geographic Society says. The name comes from a Greek word meaning “icy cold.” The science deals with temperatures below 300 degrees Fahrenheit.

Cryogenics research has gone into high gear in recent years. In 1949 the Massachusetts Institute of Technology appointed its first professor of cryogenics. Since then, scores of cryogenics laboratories have been set up by industries making everything from computers to rockets.

Laboratories produce low temperatures with special equipment similar in principle to a refrigerator or an air conditioner. Compressed gas is fed into a chamber where it expands, absorbing heat from the material being refrigerated. The process is repeated until the desired temperature is reached.

The practical value of cryogenics stems from the nature of heat, which is the equivalent of the movement of molecules composing matter. Molecular movement is frantic in gases, such as air, even when they seem completely still. Individual molecules may race at speeds of 900 miles an hour and hit other molecules 5,000,000,000 times a second.

In liquids, the molecules glide gracefully over one another. In solids, they become still calmer, and their motion takes the form of an endless vibration or “shimmy.” At 459.72 degrees below Fahrenheit, even this movement comes to a halt.

Deep refrigeration of metals reduces the movement of molecules, which interferes with electric current. Metals become superconductive at cryogenic temperatures. A current induced in a lead ring will continue circling for years without additional energy.

Cryogenics promises to revolutionize the electronics industry. A refrigerated crystal can pick up radio signals too faint to be detected by ordinary electronic tubes. It may also be possible to reduce a giant computer to the size of a hat box by using microscopic elements of lead in place of tubes and magnetic cores. The computer would operate at cryogenic temperatures.

At extremely low temperatures life processes slow to a halt. Whole blood can be preserved indefinitely. So, too, can semen used in the artificial insemination of cattle. The Naval Medical Research Institute at Bethesda, Maryland, has “killed” living cells with cold, dehydrated them, and restored them to life. The experiments point to the possibility that men may some day travel through space as living icicles.

How To Stretch Your Local's Dollar In Arbitration

A CONFERENCE of labor leaders was recently held in Washington, D. C., to discuss ways of streamlining arbitration problems and preventing the high costs of arbitration. Nine valuable "money-saving" tips came out of that conference, which we pass on to you!

1. Find out as much as you can about an arbitrator before you make your selection.

A man who never arbitrated a job evaluation dispute, for instance, might not be the one to select, no matter how low his rate, if it takes the parties too long to educate him in the technical details. Read his reported opinions and awards. This will give you a better idea of his qualifications and the clarity of his thinking. Reading awards will also help you to spot objectionable characteristics, such as a tendency to be overly legalistic or verbose. If it's an American Arbitration Association case and if the list of proposed arbitrators doesn't contain as much information as you'd like, don't hesitate to ask for more.

2. Don't order transcripts of hearings unless you really need them.

Court reporting is necessarily expensive and transcripts delay the award, because the arbitrator can't start writing his opinion until he gets the record. Furthermore, some arbitrators feel obliged to show that they have read every word. That means study time at the per diem rate. In rare cases—wage arbitrations, for instance—transcripts are worth what they cost. But most of the time they serve only to double the total expenses of arbitration.

3. Find out in advance what the arbitrator's fee will be.

Some arbitrators who used to charge \$100 per day have recently increased the figure to \$125 or \$150. If that's true of the man you select, and if you don't want to pay more than the old rate, the time to say so is in advance. Don't discuss fee problems directly with the arbitrator. Do it through the association or organization supplying the arbitrator. One advantage of this procedure is that any complaint about his fee or bill is communicated to him without disclosing which party registered the complaint. That makes it more convenient to speak up against high costs, when necessary.

4. Get together with the other party and stipulate as many facts as possible before the hearing starts.

Why spend hours of hearing-room time establishing facts that aren't really in dispute? When parties come in prepared with the names and seniority dates of grievants, amounts of money involved and other details of record, it not only cuts hearingroom time but shortens the arbitrator's study time as well. This suggestion will prove practicable, especially where company and union are on friendly, cooperative terms and where both are equally anxious to save money.

5. Dispense with the written opinion if not needed.

Most of the time, a written opinion is worth what it

costs because it provides guide lines for the future, thereby avoiding other arbitrations over contract interpretation disputes. But some disputes turn on simple matters of fact that are not likely to occur again, or on credibility of witnesses. And some cases are "political," the decision being a foregone conclusion, necessary only to get a party "off the hook." In such cases, parties may want only an award, without the written opinion. When the parties jointly tell the arbitrator in advance not to bother with a long dissertation, his bill for "study time" will probably be smaller.

6. Avoid pointless citations.

Unless he's an "impartial chairman" or "permanent umpire," the arbitrator does not have to follow precedent. When parties indulge in pointless citations they only compel him to "go to the books" himself. That takes study time. It is true that while arbitrators aren't bound by precedent they may, in some cases, be persuaded by the thinking of others. Citation of awards by other arbitrators may be useful for that limited purpose, provided the citations are accurate. Don't rely on digest or headnotes alone. Many an arbitrator, reading the full award and opinion, has discovered that it doesn't prove what it was supposed to. Obviously, that has a boomerang effect.

7. Avoid futile fights about arbitrability.

If you really believe the arbitrator has no authority to act on a certain matter because it is beyond the scope of the arbitration clause, or because important time limits have not been observed during grievance procedure, by all means make an issue of it at the hearing. But if all you mean is that the company's case is not well founded, that the facts don't support the action taken or that the arbitrator cannot uphold the other party's position in view of the clear contract language, argue your case on the merits. Making a pointless issue of arbitrability may cause hearings to last twice as long. This also adds to study time.

8. Be considerate of the arbitrator's time.

When a hearing date is set, keep it. Don't ask for postponements unless absolutely necessary. The arbitrator is a professional man whose time means money. He may be turning down another case on the day when your hearing is scheduled. He doesn't officially charge call-in pay, of course, but if he loses a day's work because of a hearing postponed the last minute, he may charge you for the time anyway.

9. Don't drag it out.

Avoid unnecessary postponement in bringing the matter to final arbitration. The longer a case drags on the more reluctant an arbitrator might be to award full back pay to the grievant. Keeping a case in arbitration too long before a decision is handed down will discourage members from pressing cases to arbitration. Sometimes the nature of the case calls for a decision within a short period of time. For such grievances, "justice delayed is justice denied."

Suppose you were buying a radio receiver for a blind person



WHAT KIND OF SET WOULD IT BE?

WHAT do you, as a technician look for when you buy a radio for yourself or for a gift? Depends, doesn't it? If it's a portable for you to take to the beach, you're probably looking for a sufficiency of transistors. And . . . if it's a gift for a young girl's graduation you might have to waste some of your professional know-how and get one with the colorful case she's indicated she's been dreaming about. In any event, your set of shopping specifications are likely to



"The right touch" is essential for radios used by the blind. Good heat dissipation is as important as the special raised dial arrangement. Blind people who can afford to buy their own radios do. For those who can't—often homebound people vitally dependent on radio for news and companionship—the "Radio Fund" of the American Foundation for the Blind distributes sets as an outright gift. Checking one of the sets about to be shipped is Albert Asenjo (himself blind), Specialist in Vocational & Rehabilitational Services for the AFB.

be a lot easier than those the American Foundation for the Blind has to meet when it spends the "Radio Fund" money donated by the public to supply radios for those blind people who can't afford to buy their own.

The Foundation's own laboratory tests a variety of models each year, then chooses one to be the year's standard.

Here's what the Foundation must get (and all for a cost not to exceed approximately \$15.00 wholesale):

- broad base so the set won't tip easily as its blind user reaches toward it.

- wired circuit with easily replaceable standard parts (since factory servicing or seeking a specialized repair man might prove insurmountable problems to the blind user)

- good heat-dissipation facilities so touching it won't prove continually irritating.

- special raised dials, arrows, etc. for station selections, etc.

In the past, several manufacturers have supplied sets. Currently, and for the past several years, Dewald has been the choice, with the company undertaking a separate run for these specially adapted sets.

The "Radio Fund" has been in existence for fifteen years with Clifton Fadiman, noted literary and broadcasting figure, as its Chairman from the beginning. It makes about 1200 radios a year available to blind persons who are often homebound as well. Radio listening often makes the difference between interest in living and apathy for them. It keeps them current in what's going on in the world around them and provides recreation in addition. Requests for the radios are routed to the Foundation from local social service agencies all around the country.

Some people donate a "whole" radio, others send in a dollar or two toward one. All the selective testing for model suitability, and later the individual testing of each set is done by the AFB.

Editor's note: Donations should be sent to American Foundation for the Blind, Inc., 15 West 16th St., New York 11, N. Y.

Kennedy Moves in Fast to Help Jobless, Stop Drain on Gold

WASHINGTON (PAI)—The Kennedy Administration is moving in rapidly on a number of fronts to boost the economy, bring aid to the jobless who have exhausted their benefit rights and to stop the drain on gold which has been causing concern for the strength of the dollar.

In sending two bills to Congress to help the unemployed and their children, the new President sounded the keynote of his Administration thus far with the terse comment:

"The need for prompt enactment of this legislation is clear."

Most important of the proposed legislation was a bill for extending some \$950,000,000 in aid for workers who are without jobs and who are no longer entitled to draw benefits and some \$300,000,000 to provide aid for the children of such parents.

In a letter to Congressional leaders calling for prompt action, Kennedy pointed out that there are now 5,400,000 unemployed with 3,400,000 drawing benefits. More than half a million already have exhausted their benefit periods and at least 3,000,000 are expected to have exhausted their benefits in the course of the next year unless there is a dramatic turn in the economy.

While the extension of rights under the Kennedy proposals would be temporary as was a similar measure enacted during the 1957-58 recession, the new bill would call for a permanent increase in employer contributions to the unemployment fund and would be preliminary to a widespread overhaul of the whole unemployment compensation system to be proposed by the Administration later this year.

Under the proposed temporary extension of benefit rights, workers who exhaust their rights between October 31, 1960, and April 1, 1962 would receive additional rights of one-half of their state rights up to a combined federal and state maximum of 39 weeks. The states would be reimbursed through the federal treasury for the additional payments, the funds being raised through an increase in the present unemployment tax base from \$3,000 to \$4,800.

Secretary of Labor Arthur J. Goldberg, at a press conference, estimated that the cost of the program would be about \$950,000,000 if all the states took advantage of it and that the extra income from the increased tax base would fully reimburse the Federal Government in five or six years. The increase in the tax base would be made permanent in order to build up state unemployment compensation funds.

The second Kennedy unemployment measure would extend aid to about 750,000 children of needy unemployed under the Federal Aid to Dependent Children program. Previously this aid was available to such children only if their fathers are dead, disabled, or have deserted their families. Average benefits under this program, which is being supported by the Department of Health, Education and Welfare, would amount to \$29.70 per child.

President Kennedy further pushed action on the job front in a telegram to 297 mayors of American cities urging their support of the Housing and Community Development Section of the President's Program for Economic Recovery and Growth. The President told the mayors that his efforts "to improve the employment situation can be helped considerably by increased urban renewal activity." He cited the fact that "there are many projects now underway or whose final plans have been approved in many cities that can be speeded up creating additional jobs immediately."

Finally, President Kennedy jumped into the thorny problem of the drain of gold reserves that has been going on for the past ten years and is now becoming serious.

Declaring that the "situation is one that justifies concern, but not panic or alarm," Kennedy declared that "the first requirement for restoring balance in our international payments is to take all possible steps to insure the effective performance of our own economic system—to improve our technology, lower our production and marketing costs, and devise new and superior products under conditions of price stability. The real wealth of a nation resides in its farms and factories and the people who man them. A dynamic economy producing goods competitively priced in world markets will maintain the strength of the dollar."

Having revoked the Eisenhower order to ship home soldiers' families as a dollar-saving device, Kennedy listed a number of other steps which he felt would be adequate to cut down on the drain on gold. These included: proposed cuts of the amount of duty-free goods tourists may bring back from abroad from \$500 to \$100; financial devices such as high interest on short-term loans to attract foreign capital; means of persuading our Allies to bear a larger share of foreign aid than they now do, a study of American investment abroad to determine if too many advantages are being offered American interests, and legislation to end corporation abuse of tax privileges abroad.



Sea-Going Television System Provides Carrier's Entertainment



*Live shows are broadcast to destroyers
and other accompanying ships
within a five-mile range of the carrier*

TELEVISION has gone to sea aboard the aircraft carrier *U. S. S. Franklin D. Roosevelt*, providing live and filmed entertainment for the vessel's 3,500 officers and men on journeys far from home.

Installed and operating aboard the carrier, it was disclosed recently, is one of the most extensive closed-circuit television systems ever installed on a naval vessel. It comprises such professional equipment as portable TV cameras, motion picture and slide projectors and a control center capable of feeding programs to twenty-five television receivers placed selectively on the 974-foot carrier.

The sea-going system was custom designed by the Radio Corporation of America and installed by its engineers during the carrier's recent layover at the Brooklyn Navy Yard for maintenance and repairs.

In addition to providing shipboard entertainment, the system transmits television programs to destroyers and other accompanying ships within a five-mile range where the signal can be picked up by conventional TV receiving antennas.

"This makes it possible to broadcast live shows, featuring shipboard talent, ceremonies for U. S. and foreign dignitaries and other special events, as well as motion pictures, to any of our escort vessels," said Lieut. (J.G.) Loren Kuske, the *Roosevelt's* electronics officer.

As a source of movie fare, the closed circuit system replaces eight or ten impromptu "theaters" that operate nearly every night the ship is at sea, according to Lieutenant Kuske. He said the elimination of multiple projection points will mean a substantial saving in both manpower and motion picture equipment.

Aboard the carrier are guitar-players, baritones, comics and other performers that every Navy crew possesses. In their off-duty hours, they can be found rehearsing their acts for appearances before the cameras.

The TV system was purchased by the ship's crew

from monies accumulated in its Recreation and Welfare Fund. The fund derives all of its revenue from profits on items sold to crew members in the ship's six stores. Three crew members, with ratings as electronics technicians, were trained at RCA's Camden, N. J. plant in the operation and maintenance of the system.

In ports around the world, the system is capable of picking up local television programs such as those broadcast over Station BTQ in Brisbane, Australia, or over Station TTV in Bangkok which can be tuned in on Channel 4.

Installation of the television system coincided with the big flat-top's fifteenth anniversary. Virtually a floating city, the *Roosevelt* contains complete hospital facilities, including a 49-bed ward; laundry, dry cleaning plant; tailor shop; three barber shops; soda fountain; library; six stores, and a post office, among other facilities.

The ship can carry up to 100 fighter and bomber aircraft, and her three steam catapults can launch six planes per minute from the flight deck. Its commander is Capt. Edward W. Hessel of Cincinnati, Ohio.

'Try Mrs. Mulligan's Boarding House'

Many a salesman of television and radio time will tell you at the drop of a commercial that "the advertising business is going to the dogs."

Evidently it has been so for the past 100 years, because a recent re-issue of "The Atlanta Century" for December 16, 1860, by that city's "Journal-Constitution" contained a news story about the dogs of San Francisco.

It seems the 1860 San Franciscans were catching white dogs and stencilling their advertisements on both sides of the dog in black ink, then turning them loose.

These were called "doggerotypes" in a 19th century pun.

The speculators of the canine commercials figured that one lively dog was worth about \$5 a day . . . the equivalent in those days of about a quarter-column of newspaper advertising.

California Legislature Considers Minimum Wage

Two labor-backed measures, proposing a state minimum wage of \$1.25 per hour were submitted to the California legislature during the last week in January by Assemblyman William Byron Rumford (D., 17th District, Alameda County).

The veteran Alameda legislator labeled the bills (AB 682 and 684) "moderate and essential in a period of urgent need for action."

Our economy, Rumford said, cannot "afford the economic drain that results from forced subsidy by employers and the public to the low wage industries and individual employers who do not meet 20th century standards of human need and decency."

Both measures are fully applicable to agricultural workers, who are known to suffer most from lack of any minimum wage protection.

One of the Rumford measures establishes the \$1.25 minimum as statutory law (at present minimum wages in California are set administratively by the Industrial Welfare Commission for only women and minors).

The other and broader measure, in addition to establishing the \$1.25 per hour statutory minimum, also contains all of the provisions necessary for a state fair labor standards act, including overtime pay at time and a half for hours worked beyond 40 a week, and at double time for hours worked in excess of 10 in any one workday, or 48-hour workweek.

The broader measure also contains administrative provisions within the Department of Industrial Relations for establishing a higher minimum wage, or a shorter workweek as special conditions of an occupation may warrant. The authority of the Director of Industrial Relations is carefully circumscribed.

On his own motion, or on petition of 20 or more residents, the Director is given the authority to investigate an occupation "to ascertain whether a substantial number of employees in such occupation are receiving wages less than the reasonable value of the services rendered, or less than sufficient to maintain the health and general well-being of the workers."

Where such conditions are found to exist, the Director may issue appropriate orders and regulations, setting the minimum wage rate and maximum hours that would apply in this special occupational category. In no case, however, could the minimum rate be less than \$1.25 per hour, nor the maximum workweek be in excess of 40 hours.

Vital 'Defense Fund' For Organized Labor

Organized labor will participate this month in what may well be the most important "defense fund" for the American working man.

In thousands of communities across the nation, members of labor unions will be among the more than 1,500,000 volunteers serving the annual Heart Fund campaign of the American Heart Association.

That the Heart Fund is actually a defense fund for American Labor has been suggested by the American Heart Association.

"The heart and blood vessel diseases," the Association says, "are the nation's number one health enemy, taking more lives each year than all other causes of death combined. In 1958, almost 900,000 deaths were caused by the heart diseases or just about 54 per cent of all the deaths in this country.

How many of these deaths were of working people and union members? All that any labor union has to do, the Heart Association points out, is to look at its own lists of deceased members to find the answer.

"The number of members who have passed on because of heart attacks and the various diseases of the heart and blood vessels is cause for sober thought," the Heart Association says.

The Amalgamated Association of Street Electric Railway and Motor Coach Employees of America, AFL-CIO, was cited as an example. During January 1959, this labor union paid funeral benefits to the families of 171 deceased members.

More than 60 per cent of the deaths listed by this single union in but one month, were caused by diseases of the heart. Of the 171 deaths, 104 were listed in the union's records as due to some form of heart and blood vessel disease.

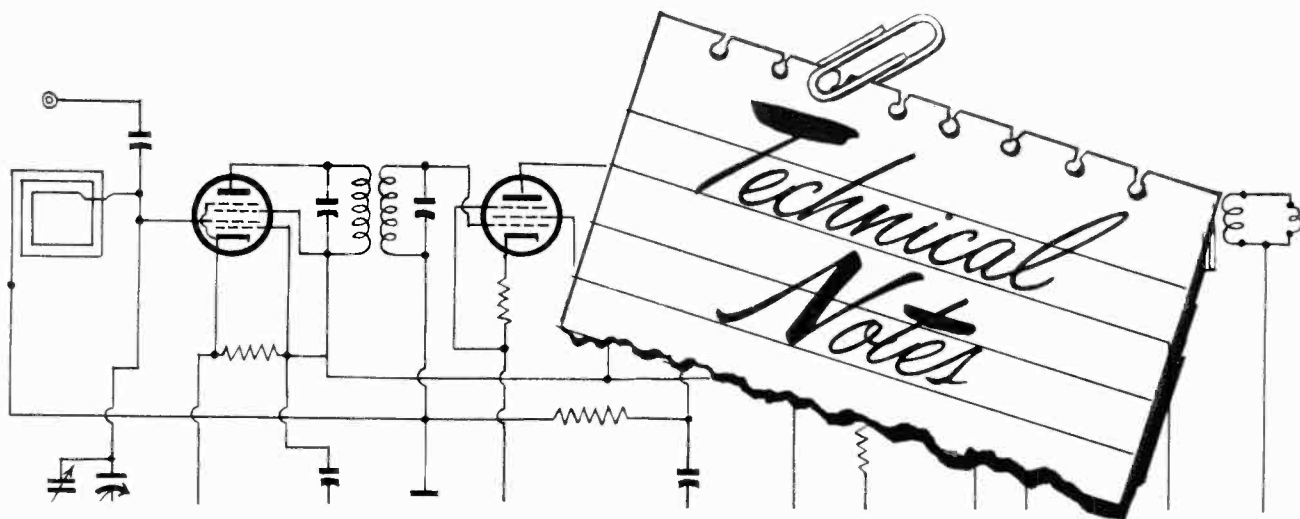
"Heart disease is labor's number one health enemy," adds the Heart Association. "There can be no doubt of this. Nor can there be any doubt that the Heart Fund is labor's number one defense against these diseases, supporting the research, education and community service programs of the American Heart Association, its affiliates and chapters."

The American Heart Association, with its 55 state and regional affiliates and more than 300 chapters is conducting its 13th annual Heart Fund appeal this month. The campaign will reach its climax on Heart Sunday, February 26th, when 1,500,000 volunteers throughout the nation will make door-to-door collections.

The 1961 RADIO, TV AND RECORDING DIVISION PROGRESS MEETING

MINNEAPOLIS, MINNESOTA—AUGUST 15, 16, AND 17

Your local union should have representatives at this annual gathering.



Diode for Microwave

Radio Corp. of America has developed a small electronic device called a "varactor" diode which the company said will offer benefits in microwave communications systems.

The company said the new diode, which picks up and amplifies microwave signals, should make possible "low cost, highly efficient" signal receivers for use in a variety of applications, including space vehicles, ballistic rockets and radio telescopes. Microwaves are radio waves used to transmit messages at great speeds in point-to-point communications.

RCA said the new diode is expected to hasten development of microwave networks that would be "virtually invulnerable" to enemy jamming techniques.

New Mobile Telephone

A new type of automobile-telephone eliminating an age-old problem of half-heard messages is being introduced by General Electric Company for use in vehicles receiving mobile telephone service through telephone companies or answering services.

Previously, when a person in a car was transmitting a message to a home or office telephone, or a broadcaster was telephoning in news, and the recipient attempted to interrupt, the voice of the wire-line party at home couldn't be heard in the car because the vehicle's push-to-talk button wasn't in the proper position. This occurred because the receiver in the car was disconnected automatically whenever the driver talked.

General Electric's new telephone device is engineered so the vehicle's receiver is no longer inoperative when the car transmits. The new design permits the receiver to remain on and ready to receive a message, picking up the conversation immediately when the home party begins to talk.

The first of its type in the communications industry, it permits the driver to hear the wire-line party if the

latter cuts in during a transmission. Thus, the last half of the mobile unit's message isn't lost while the wire-line party tries to interrupt and the car hears all the remarks of the person cutting in. The new system permits free-flowing conversation identical to conventional telephone service.

General Electric calls the new feature "full simultaneous duplex," signifying simultaneous two-way conversation. It will be especially beneficial in instances where people involved in the conversation with the mobile are not aware that the telephone is in a car and that special procedures have been required to avoid message confusion.

Where Direct Distance Dialing service is available through telephone companies, a car equipped with the new General Electric two-way dial mobile telephone will be able to place and receive calls to and from any part of the country without the services of an operator to route the call. The two-way dialing system combined with Direct Distance Dialing makes the connection automatically. Where Direct Distance Dialing is not yet available, a telephone operator is used.

The new General Electric two-way dial equipment is designed with a mobile identification encoder which tells the central office automatically where the call is originating so toll charges can be credited properly. This expedites the call so that an operator does not have to perform the task of toll-ticketing.

The control equipment, frequently mounted at the dash of the car or truck, may also be mounted on top of the tunnel or hump extending along the floor of some vehicles. It is modern-styled, compatible with the more futuristic telephones now becoming available in the telephone industry and employed so far only in homes and offices. Because advanced design is used, the radiotelephone blends harmoniously with richly-styled car interiors.

While a button is included on the new unit's handset as a battery-saving technique, it doesn't limit the conversation. The new "listen while you talk" G-E equip-

ment has achieved a new low in battery drain for telephone-type units—2.9 amperes on standby and 5.6 amperes when transmitter filaments are on.

The equipment is designed for operation in cars receiving telephone company Mobile Telephone Service and in vehicles served by Miscellaneous Common Carrier answering services where interconnection with Common Carrier telephones exists. It employs radio frequencies already assigned by the Federal Communications Commission.

The new unit provides multiple channel access and makes increased channel capacity available. It offers five-channel operation with pushbutton selection as a solution to the "line is busy" problem sometimes encountered by cars attempting to place a call. Regardless of the channel used, an "automatic reverting" arrangement switches the system back to the originally-assigned call channel when a conversation is completed.

Two types of mobile combinations are available in the new design. In areas offering manual mobile telephone service, where placing even local calls through the operator is necessary, General Electric supplies non-dial equipment. This may be field-converted easily when the telephone company elects to use mobile dial service. For those areas where the telephone company has appropriate automatic central office equipment and does not wish to use an operator for mobile telephone calls, the dial design is employed.

The manual system is compatible with the older and simplest mobile telephone equipment installed in various parts of the country while the two-way dial serves the needs of the more advanced operations.

General Electric's Communication Products Department, Lynchburg, Va., supplies the complete package to telephone companies on a lease or purchase basis. This includes the tone signalling and decoding equipment located with the basic radio in a single case in the trunk. Additionally, G-E supplies the single power/control cable, antenna and the integrated control unit for dash or transmission-tunnel mounting.

The new design uses the engineering concepts of General Electric's Progress Line of mobile communication equipment and employs Progress Line components. However, the transmitter, receiver and power supply have been designed specifically for the telephone market.

For Back-Seat Drivers

Experiments are still continuing toward the goal of installing television in automobiles, but the outlook is that it is from two to five years away . . . if ever.

Some states have either passed or are considering the passage of legislation to outlaw television which can be seen from the driver's seat on the theory that the driver cannot watch TV and the road. This leaves only the back seat as a potential position for an automobile-borne TV viewer.

Other setbacks include the thinness of the available space (in the rear of the front seat), outsize price of the potential set and outsize size of the set itself, vibration of the components and necessity for a towering antenna to ensure good reception.

Probable outcome: Car radio will remain until the day when automobiles are put on electronically-controlled superhighways and the occupants sprawl around in a type of mobile living room.

Infrared Messages

Minneapolis-Honeywell, this month, announced a new communication system that uses ray guns to transmit voices secretly and silently.

Honeywell engineers said the system consists of sending and receiving units shaped like guns. The units are aimed at each other for transmitting a narrow beam of infrared radiation.

Anything spoken into the gun is electronically converted into infrared and transmitted to the receiver which converts the message back into sound.

Small hand units have been developed which have a range of three miles and larger systems have a 20-mile range.

The engineers said the system, called Maxsecum (maximum security communication) cannot be jammed, detected or interfered with.

Machines That Talk

Eggheads in colleges tell us the reason Man is running things nowadays is on account of how he learned to talk and could scheme up with other Men on the Animals. One man discovered how to make a bow and arrow and he *told* another Man . . . which was about the end of all for animals around that section of the woods. This led right up to the H-bomb and all that Big Noise.

But now we have trouble coming over the New Horizon . . . the Machines are learning to talk!

The domeheads at Bell Laboratories are responsible. They have a contraption that makes it possible for machines to talk to machines and you know what that means . . . remember the bow-and-arrow guy?

Two computers can talk with each other when a translator, called a digital subset, converts one machine's "language" into electronic impulses that are transmitted over wires. A subset at the other end of the wire changes the impulses into messages that any attached machine can assimilate. Eventually, they say, electric typewriters may chatter to each other. And, already, there are machines around translating Russian into English for people who don't speak it.

Orson Welles was on the wrong track when he pictured the world being taken over by Martians. If these crazy machines learn to talk, next thing you know they'll start to act in concert . . . then, boy, we've HAD it!



STATION BREAKS

FCC and Congress

The FCC has asked Congress to require owners of abandoned radio towers to continue to paint and illuminate them to prevent their becoming a hazard to aircraft.

The Commission also has requested legislation that would eliminate the requirement of an oath on certain FCC forms. Both requests were accompanied by suggested bills in the form of amendments to the Communications Act.

Union Industries Show

DETROIT (PAI)—Plans are being made for record-breaking crowds at Detroit's new and modernistic Cobo Hall when the AFL-CIO Union Industries Show opens here April 7-12.

Joseph Lewis, secretary-treasurer of the AFL-CIO Union Label and Service Trades Department, kicked off the advance promotion campaign for the show at a meeting of the Wayne County AFL-CIO.

Addressing delegates, Lewis told how local unions could assist in assuring the success of the mammoth exposition.

"Of course the most important job to be done," Lewis said, "is to sell all the remaining exhibition space." He stated that this could be accomplished only if every labor organization in the city participated in some degree. Sales of booth space thus far have been brisk but there is still a big job to be done before assuring that every union member in Detroit will be represented in the show.

Lewis requested that every local union undertake a campaign to mail show tickets to the homes of all members.

"This show is a family affair," he said, "and we want to see every union member in the area bring his wife and kids to see the products he produces through his labor."

The show will be officially opened on April 7th and will run for six days. Lewis suggested that all union offices be closed the afternoon of April 7th to allow their employees to attend the opening ceremonies. In

Washington, D. C. last year a crowd of some 15,000 watched President Dwight Eisenhower cut the ribbon to open the show.

In the fifteen years the Union Industries Show has been in existence more than 4½ million people have witnessed it. It is designed to show the general public the harmonious relationships that can and do exist between fair employers and members of the AFL-CIO unions.

Public Feels Union Need

PRINCETON, N. J. (PAI)—The Opinion Research Corp. here has just completed a national survey which shows the public still feels the great need of unions.

"It would be a grave mistake to interpret the temper of the times as an opportunity for union busting," the research organization concluded following its survey.

LAST LAUGH



"The Research Department says it'll cut our labor costs in half."