

TECHNICIAN ENGINEER


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

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS — AFL-CIO

EXTINGUISHING THE DEADLY MATCH

LANDMARKS OF LABOR NO. 32



In June, 1910, delegates to the First National Conference on Industrial Diseases assembled in Chicago to consider a problem that was making increasing inroads on the health of the American workingman—occupational diseases. The conference was sponsored by the American Association for Labor Legislation.

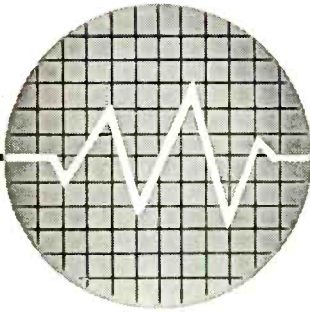
Since the middle of the nineteenth century, various occupational diseases had engendered much interest among pamphleteers and a few medical men, but state and federal health bureaus were slow in resolving the problem.

In 1902, Dr. Thomas Oliver's "Dangerous Trades" drew the country's attention to the rising number of deaths due to phosphorus, lead, and arsenic poisoning in manufacturing establishments.

At the Chicago conference, it was announced that the first state commission on occupational diseases had been appointed and had completed an investigation of one industrial poison. The reference was to the Illinois Commission on Occupational Diseases; the investigation concerned John B. Andrews' famous study of phosphorus poisoning in the match industry.

As a result of this study, Congress passed legislation taxing match manufacturers who utilized the deadly white phosphorus two cents per 100 matches. This law marked the demise of the phosphorus match.

This first successful attack on a cause of an industrial disease led the American Association of Labor Legislation to join forces with the United States Bureau of Labor Statistics. Together the two continued their fight against other occupational diseases in other industries until adequate safety standards were adopted by the national government, the states, and the municipalities—thus protecting the health and welfare of our working men and women and establishing another landmark of labor progress.



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ALBERT O. HARDY, Editor

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the cover We are endeavoring to get an article and some pictures together for our next issue, on the production center at Videotape Productions, Inc., New York. This month's cover is a picture of Brother Joseph Polito, in the Studio A Control Room. Brother Polito is a member of L. U. 1212, is a member of the crew which got VTP started, and is a Technical Director of high professional standing.

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 1960 figures: December, 1960—127.4; December, 1961—128.3.

COMMENTARY

THEY ALSO SERVE WHO ONLY STAND AND WAIT: It is probably impossible to begin to estimate the number of IBEW members who were involved in the Mercury space flight by Lieut. Col. John Glenn on February twentieth. Some members of the press have estimated that about 30,000 Americans had a direct hand in the historic event and theorize that as many as a half-million probably had an indirect part in it. The 30,000 includes, of course, the Navy personnel on ships in the Atlantic, NASA and other governmental agencies and about 10,000 employees in private industry. There were 18 (official) tracking stations watching Col. Glenn's progress and many employees of Western Electric were involved in developing and establishing the world-wide tracking network.

It would also be difficult to say how many radio and television—and recording—technicians were on duty to report to the world all the details of the flight. We know there were many—from Mutual and Columbia, members of the IBEW—and from ABC and NBC, members of NABET.

To all those who made it possible, from those who put nuts on bolts to those who so well-reported the success of the mission, a hearty "Well Done!"

A recent Gallup Poll reports that nine out of 10 persons interviewed in its latest nationwide survey reject the proposal that the U. S. withdraw from the United Nations.

(PA1)

By What Standard Should U. S. TV Be Judged?

Broadcast Consultant With International Reputation Declares Our TV System Tops Those in 14 Other Nations; Offers Point-by-Point Comparison to Prove Argument

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By **RICHARD P. DOHERTY**

BY WHAT standards should the American tv industry be appraised and judged? As a medium, it should not be evaluated according to the personal tastes of an individual, a group of individuals, or even a few thousand individuals. For many, many months, various persons—with good access to the printed media—have cast aspersions on American tv because, too frequently, they have chosen their own cultural and literary standards as arbitrary measures of public interest and public needs.

We are not a nation of morons. The millions of Americans who daily watch tv programs are the fabric of the nation—they are not misguided, uneducated people of low cultural standards. Against the articulate criticism of a few thousand persons who like to write letters, there are millions of solid Americans who go on, daily and weekly, liking our American brand of tv.

The FCC has received several thousand letters which criticize tv programming. How many letters were sent to the FCC from the 12 to 15 million homes which regularly, each week, tune to *The Untouchables*, *Bonanza*, *Gunsmoke*, and similar programs? These millions of citizens include factory workers, housewives, doctors, lawyers, farmers, secretaries, professors, government workers, schoolteachers, business executives.

Television is the current object of attack from certain public groups, from the intelligentsia, the avant-garde, and the newspapers and magazines. The latter—newspapers and magazines—are fighting a dollar and profit battle against tv and are not always objective in their opinions and articles, because the rapid expansion of tv hurts their advertising pocketbook. Many other critics of tv are motivated by their specialized interests and often ignore or disdain mass public interests even though their criticism may be offered in good faith.

There would be far more justifiable criticism of American tv if the medium primarily served segmented group interests rather than mass public interest.

As producers of a consumer service, every network or station executive would welcome objective criticism and objective appraisal by the public. Unfortunately, much of the criticism of tv has come from persons who assume that they know what interests the public, or assume that they know what is best for the public.

It is, indeed, constructive to subject a mass medium of communication, such as tv, to objective appraisal and criticism. However, to be objective, one must have some

standards or yardsticks from which he may evaluate results and achievements.

Why not examine American tv industry according to the programs, accomplishments and public services of tv throughout the world?

The critics of American tv will not prefer this standard because, by it, overall American tv programming is the best and most diversified which is offered to the public in any nation, anywhere in the world.

In no other nation is tv watched and enjoyed by the public for so many daily and weekly hours, by the average family, because in no other nation is tv so interesting and so much to the varied total public taste as in the United States.

In no other nation does the public possess the wide choice of diversified program selection as in the United States. Japan ranks second and Canada and England third regarding diversified public choice of tv programming. In France, Italy, Switzerland, Russia, Spain, Portugal, Holland, Egypt and every other nation the public has only the limited program presentations of the governmentally owned, dominated and dictated tv system.

American tv has become a pre-eminently greater medium of mass communications than any other in the world.

During any given week, the U. S. public has more total hours of free choice of discussion, talk, forum, education, news, farm information and so called public service programs than is available to the public in any nation of the world including England, France, Italy, Germany, Japan, Sweden, Holland, Switzerland, Egypt.

Religious tv programming hardly exists outside of the United States.

In no other nation of the world is there so much fully equal tv time for political talks and controversial discussions as in the U. S.—and without political bias.

During each and every year, the three American networks devote more money, manpower, know-how and total telecast hours to education, talks, discussion, and public affairs than in all the nations of the world combined. Who, among tv's critics, gives the networks full credit for these many hours of tv program service despite the loss of profits involved and the public service rendered? As one single example, the three networks spent upwards to \$500,000, with a crew of nearly 150 persons working for two weeks, to bring the dramatic Alan Shepard space flight to all of America on 5 May 1961.

Television, as a broadcasting and set manufacturing industry, has had its greatest growth and widespread public acceptance in the U. S.—and by a wide margin—and because tv programming has progressively appealed to the vast American public.

The most highly developed public use of tv, except in the U. S., is in England, Japan, and Canada. It is significant that in all three of these nations, American programs rank among the most popular in public favor.

Ironically, to the consternation of the critics, the American tv programs which are popular with the people of foreign nations are the same programs which attract the largest mass public audience in the U. S. Many critics shudder at the thought that our “adult western” and “detective” tv shows are big favorites with the Japanese, Canadian, and other foreign people.

In no other nation of the world, without exception, does the public possess the tremendous variety of total entertainment choice as is telecast daily and weekly by the American networks and stations.

In no other nation is there the massive tv news coverage that prevails—daily and weekly—throughout the U. S.

The tv system of any other nation does not even begin to offer to its people the amount of educational-type programs as do the networks and individual commercial stations of the U. S.

No tv system, in England, continental Europe and elsewhere, achieves the overall professional production techniques of American tv. Throughout 80% of the world, tv program production doesn’t remotely approach our networks and, in fact, rarely equals the local production competency of individual stations in our “first 75 metropolitan markets.”

The author of these observations has either worked with or has visited or observed tv broadcast operations throughout most of the world and around the world. Except possibly in England, France, and Italy, he has been impressed by the fact that American tv is regarded by the broadcast professionals as the ideal standard of accomplishment and the goal of achievement. Throughout the world, the U. S. has set the mark of program-production achievement for other national tv systems.

On the basis of our personal world-wide experience with tv, we view many of the self-appointed critics as comparable to those persons who point to our city slums as being typical Americana. Of course, there is mediocre tv programming but this does not truly represent the overwhelmingly predominant hours of good network and station tv programming. However, whenever mediocre programs—by public interest standards—are put on the air by stations or networks, public disapproval is prompt and rapid via audience circulation. No tv executive can possibly force the public to like any given program regardless of his personal opinions.

Who is to say that any given tv program is bad and should be replaced if millions of Americans like the

program enough to tune in week after week?

This brings us to a second objective or yardstick by which American tv should be appraised, namely, public interest in our network and station tv programming.

As of today, American tv belongs to the public and free public tastes dominate program choice. No group or governmental agency decides what the public should watch on its home tv screen.

The real gripe of many critics of tv is that they cannot get the exact program which they, individually, want and the time when they want it. These same critics would suffer greatly, in every other nation, where the hourly, daily, and weekly tv program schedules are far more restricted, far more limited, and much less diversified than in the United States. Moreover, no mass medium can ever achieve the optimum ideal of serving both mass public interests and the personalized cultural interests of each and every group.

Each person and group has a full and legitimate right to his (or its) personal tastes. But no person or group should take on the responsibility of determining the cultural tastes of the vast American public. If persons, or groups, truly believe that their social and cultural standards are good for the public and the nation, they should strive to educate the public toward their concepts; they should not arbitrarily impose their standards by legislation, decree, or “domination by influence.”

When uninhibited and uncontrolled tv ceases to prevail in the U. S., and if legislative or bureaucratic direction dominates and determines our tv menus, American tv will lose its vitality and world leadership and will cease to be the great mass medium for which the overwhelming majority of Americans vote enthusiastically.

American tv is a reflection of mass American tastes. If certain persons don’t approve of these mass tastes, the leadership challenge is to either change this taste or decide who is out of step.

There is no such thing as a total, mass audience. At all times, the total mass audience is a composite of segmented interests and tv broadcasting recognizes this diversified public interest in planning typical weekly schedules.

Few, if any, American politicians would ignore 30,000,000 to 50,000,000 votes. Yet, at least 30,000,000 to 50,000,000 persons regularly and weekly view (and like) the categories of tv programs which are most severely criticized by the reformer elements and castigated as “wasted public service.”

It is moot and questionable if certain programs which are freely selected and well-liked by millions upon millions of Americans may properly be labeled “tv wastelands.”

In public tastes, we wish to repeat that what may be a wasteland to some is a paradise to millions of other persons. *Naked City*, *The Untouchables*, *Gunsmoke*, *Have Gun Will Travel*, *Tall Man*, *Bonanza*, *Laramie*, *Rawhide*, etc., may be artistically crude and asinine pro-

grams to many persons, but they are individually the regular weekly favorites of 10,000,000 to 20,000,000 Americans. When these programs lose their mass public appeal, they will be replaced by other types of mass public appeal programs.

The basic fact is that no given program could ever please all the people. Tv seeks to achieve satisfaction for a series of mass audiences. Actually, the so called audience is a composite of many group audiences, some big and massive; some small and specialized. Broadcast executives appreciate that no program can possess a common universal public appeal. Broadcasters also appreciate that tv cannot dictate public interests but it can — and should — respond to patterns of consumer tastes.

Moreover, within the cultural pattern of each individual, there are many varied interests. The fact that I personally like opera, Stravinsky, Robert Frost, traditional art and that I read books on economics, sociology, anthropology, and cultural history is not at all incompatible with the fact that I am also an avid viewer of tv sports and that I like many tv detective shows, Dr. Burke's "Way of Thinking" and certain adult westerns along with having a devoted interest in tv's politico-economic documentaries. This diversified pattern of personal tastes is characteristic of the vast majority of persons.

Cultural quality is a matter of personal standards. The artistic standards of the avant-garde hardly makes trash and artistic waste out of traditional art work. Michelangelo, Rembrandt, Rubens, Da Vinci and Monet have not become bad artists because Picasso, Matisse, Dali, Pollock, and Braque have been moved to front stage by so called modern students of art. What is good art to one group is a waste of canvas and paint to other groups.

Tv, like art, is a matter of personal interests and taste. In neither should we have one national or universal standard of perfection and public acceptance. But, in tv as in art, we must not accept the idea that the culturally advanced persons are the only ones whose opinions should be accepted by the public.

If tv, as a mass medium of communications, has "wastelands" they will be found in those nations where persons of superior culture dictate the daily tv program structure via governmentally directed tv systems.

In the numerical majority of nations, tv is entrusted to governmental domination, control or ownership operation. Throughout most of these nations, the great cross section of the public uses tv sparingly because so much programming is dull and unattractive and not of interest to the ordinary public. Such programs are truly "wastelands" for a mass medium of communication because they are a waste of valuable broadcast time.

In a certain major nation, with governmental operation of broadcasting, the Minister of Communications told me that "recently we have added two hours (daily)

of popular programming to encourage greater mass public interest."

The intelligentsia has no more inherent right to determine public taste in tv than it has in art, poetry, literature, furniture design or political choice. The U.S.A. is a democracy—politically, economically, socially, and culturally—and no divine right of public choice is bestowed upon any given group of citizens.

American tv programming is, basically and fundamentally, designed according to mass majority interests. These interests do not reflect low standards but they do reflect a wide popular diversification in program interests. Naturally, many of the programs which appeal to the mass majority are not compatible with the standards of the intelligentsia. But this is hardly a justifiable criticism for a mass medium of communication which serves the public interest of the masses rather than the specialized interest of the classes.

Ironically, the pressure for "enlightened" and "informative public service" tv programs has not reduced overall public viewing of tv; it has mainly shifted public viewing to other available programs, even mediocre programs.

During the past year, the American networks and most individual stations have, under pressure from the critics of the industry, offered many hours of so called public service programs. With practically no exception, these "enlightened" public service shows have attracted only a fraction of the audience which regularly tuned to the programs which were pre-empted.

Just who is served by the "enlightened" public service programs? Obviously, not the mass millions who don't watch them. Moreover, what good is a so-called public service program if the vast majority of the public will not tune in and watch it? You can't educate and uplift people who aren't there to listen to you.

Democracy exists only when the free will of the people dictates and directs the interests of the people. Politically, economically, and socially, democracy loses its vitality and generates its destruction when the decisions of the elite fix public policy and determine public choice.

Essential to democracy is the free choice and free vote of the public on matters political, economic, social, cultural, religious, and educational.

American commercial tv is, today, an expression of free public tastes and interests. The voting process of majority choice is—and should be—the voluntary use of the tv dial.

Is there a better way of measuring public interest within a democratic society?

Moreover, by the standard of world tv operations and programming, American tv program services, as supplied by the networks and stations, are the best and most diversified anywhere in the world. The fact does not reflect badly upon world tv, but it does indicate the superior and progressive achievements of the American tv industry as a mass medium of communication.



AT SWEARING-IN CEREMONIES for the Commission, President Kennedy speaks to Mrs. Eleanor Roosevelt, commission chairman. Also shown are four of 26 commission members—AFL-CIO Secretary-Treasurer William Schnitzler, Civil Service Commissioner John Macy, Congresswoman Edith Green, and Assistant Secretary of Labor Esther Peterson.

Labor to Play Major Role In Study of Women's Status

LABOR will play an important role in efforts of the Kennedy Administration to give women "full partnership" in our society.

The President's Commission on the Status of Women, established in December, has a number of past or present labor figures in its membership. Mrs. Eleanor Roosevelt is chairman. Mrs. Esther Peterson, Assistant Secretary of Labor and Director of the Labor Department's Women's Bureau, is executive vice chairman. Mrs. Katherine Ellickson, formerly of the AFL-CIO Social Security Department, is executive secretary. Other members of the 26-member study group have labor affiliations.

The Commission, which is scheduled to report to the President by October 1, 1963, will seek to develop plans "for advancing the full partnership of men and women in our national life."

In setting it up, President Kennedy said: "It is my hope that the Commission's report will indicate what remains to be done to demolish prejudices and outmoded customs which act as barriers to the full partnership of women in our democracy. The Commission will welcome recommendations from all groups on this crucial matter. Progress will require the cooperation of the whole community.

"One-third of our working force are women. They have a primary obligation to their families and to their homes. But their work makes it possible to maintain that home and that family in many cases. We want to make sure that they are able to move ahead and perform

their functions without any discrimination by law or by implication."

The investigation of the status of women will focus on six major topics:

- Employment policies and practices of the Federal government.
- Employment policies and practices, including those on wages, under Federal contracts.
- Appraisal of Federal and State labor laws dealing with such matters as hours, night work, and wages, to determine whether they are accomplishing the purpose for which they were established and whether they need to be adapted to changing technological, economic and social conditions.
- Differences in legal treatment of men and women in regard to political and civil rights, property rights, and family relations.
- New and expanded services that may be required for women as wives, mothers, and workers, including education, counseling, training, home services and ar-

rangements for care of children during the working day.

At its first meeting, this month, the Commission discussed the principle of equal pay for equal work. The group felt that, "where it occurs in the same establishment, the paying of lower wage rates to women workers for the same or comparable work as that performed by men workers is contrary to the concept of equality and justice in which we believe."

WOMEN IN BROADCASTING

What's the status of women in the broadcasting industry?

The U. S. Census Bureau estimated in 1950 that there were approximately 62,000 Americans employed in radio and television broadcasting. Slightly over 15 thousand of these were women.

According to the Bureau of Labor Statistics in Washington, the ladies still hold down almost a quarter of the jobs in the industry in 1962. Most of them are continuity writers, receptionists, program assistants, women's news editors, and the like. Although most announcers are men, there is a trend toward employing more women announcers, particularly in television where their appearance is an asset.

Women in engineering are rare. We tried to get figures from the FCC on lady first-class license holders but were unable to do so. Do you know any? If so, tell us about them.

OUR CHURCHES CAN PLAY A ROLE IN

By SIR RICHARD KIRBY

The article by Sir Richard Kirby, President of the Commonwealth Conciliation and Arbitration Commission of Australia, is abridged from an address given by him to a Conference of the Anglican Trade and Industrial Mission at Trinity College, Melbourne, on May 26, 1961.

I have been head of the national system of conciliation and arbitration over the last five years or so and a judge of the Commonwealth Arbitration Court since 1947. This work has made me progressively aware that, although conciliation and arbitration are necessarily concerned with material things, success can only be achieved in our field if those who work in it are dedicated to the cause of social justice so vitally involved. This dedication can only exist in a real way if it is prompted by motives and ideals themselves removed from material things. It is not sufficient in this field, I am convinced, to aim at becoming a skilled and proficient technician alone. It is necessary also to have sociological and humanitarian ideas which become part of my thinking and thus part of my decisions. Mr. Justice Higgins, perhaps the greatest of industrial judges, after his retirement said in retrospect that he had had to learn the business of conciliation and arbitration with no book of instructions, no teacher other than experience and no kindly light except from the Polar Star of Justice. As Christians, I feel it is not only compatible but also essential that we should look to the Polar Star of Justice for our inspiration.

■ As head of the national system which has as its main object the creation and preservation of proper and just industrial relations, I have had occasion to ponder over important questions related to conciliation and arbitration and not unrelated to the problems in industry with which the churches are now commendably trying to deal. The first of these questions is concerned with what on the surface appears to be the material nature of industrial arbitration: "Does industrial arbitration encourage materialism?" My conclusion is that industrial arbitration does not in es-

sence encourage materialism but that on the contrary it emphasizes and gives true scope to moral and ethical values.

Although the actual benefits conferred on wage and salary earners by the arbitration system have to be expressed in material form, such as the prescription of wages and money sums, the number of hours a man should work and when he should work them, the amount of holidays he should receive and when he should receive them, and so on, the system has as its basis the ethical concept that the worker is a human being in the fullest sense of that term. By ministering to his human needs the system enables him to fulfill his destiny and obligations as a citizen, by enabling him to provide unselfishly for the needs of his family and dependents and to enjoy the real benefits of life, freedom to live, to worship and to express his real self in the noble aim of living. Although the Bible says "Man cannot live by bread alone," it realizes that he cannot live without bread and an adequate amount of it. The Gospels—and who would assert that they emphasize the material?—have St. Luke quoting Our Lord: "The laborer is worthy of his hire," and St. Matthew: "The workman is worthy of his meat." The system of industrial arbitration has as its basis the determination that the proper rewards of hiring and the meat that the worker earns shall in reality be his.

■ Another question is whether the development of arbitration through established tribunals would help or hinder the churches in their aim of assisting those engaged in industry. I consider that the concentration in the hands of experts of the prescription of wages, both basic and secondary, and working conditions leaves employers and employees free to devote themselves, if they only have the will, to a real partnership in their industrial relations, free from constant argument and conflict. Here the churches can come in with a very real role, particularly since the abolition of widespread poverty now enables the churches to concentrate on spiritual needs rather than on the soup kitchens, clothing

depots and the like which unfortunately were called for in the last century and in the early portion of this one.

The substantial shortening of the working week in the last few decades has left workers much more time to play their part as citizens and family men and has thus given to our churches a much greater opportunity of ministering to spiritual education and cultural needs. In 1922 the standard week was 48 hours, later reduced to 44 hours and since 1947 to 40 hours. The Court and its members when considering reduction of hours have used not only economic or material criteria but have also gone to the moral or ethical concept of giving citizens sufficient leisure to live a full life, not only as material workers but also as family men and Christians. I well remember in 1947, when four hours per week were taken from industry and given to the individual worker, there were grave forebodings from many. Would the bulk of workers spend this extra time in the pub? My answer to that is an emphatic "no." Did he benefit spiritually and morally from this extra leisure? If not did he at least devote it to improving the lot of his wife and family?

■ The last question can without doubt be answered affirmatively. There appears little doubt that with his greater leisure the worker has become more home conscious. He has become a do-it-yourself home painter, decorator and gardener with real benefit to his family and the community. If the extra time which he could devote to himself, his family and his community did not result in his taking the opportunity for the fulfillment of his spiritual and moral needs, where does the fault lie? Did the churches meet the challenge? Did they realize it existed? Whatever the answer to those two questions in 1947, I am sure the churches realize the extent of the challenge now. As inventions grow and technology and automation advance, man's leisure will and should progressively increase. As this happens the challenge to the churches will become the greater, as will also the scope

Y ARBITRATION



for giving very important aid. The more complex the organization of our material living becomes so, too, do our individual spiritual and moral problems. There is thus the greater need by man, whether employing or employed, for help from the churches. I would imagine it will become more and more necessary for the servants of the church to become themselves even more highly trained and even to become specialists in fields such as those of industrial relations.

The worker is a most important individual when considered just as a worker; he makes up the overwhelming bulk of the community, but it must be remembered that the ordinary male worker is many things in addition. At the same time he may be a son, a father, a husband, a brother, a member of a club or clubs, a churchman, a student, a reader and son on. The arbitration system, although it primarily thinks of the worker as a worker, also recognizes his many other characteristics, but even more so the churches are interested in him

as an individual human being combining all the many interests I have mentioned and many more besides.

■ Since I first commenced to consider whether there was a role for the churches in the field of industrial conciliation and arbitration and of direct employer-employee relations I have not waived in the belief that there is such a role and that it is a very important one. But by the sheer weight of the numbers of those employed in contrast with those who do the employing, or who are in executive positions, it seems inevitable that the employees are always on the receiving end. It is the employees who seem always to get advice as to codes of behavior and conduct rather than those who employ them. This appearance has led to some skepticism and sensitivity on the part of employees who feel that they are always the ones who are told to "play the game," "to be tolerant Christians" and so on.

I feel that the churches should make it

clear that they realize that the employers and the executives need just as much advice on how to behave as humanitarians and Christians in the field of industrial relations as those they employ. Indeed, the profit motive, which is healthy enough if kept properly in check, would perhaps on balance make it more likely than not that the employers and executives should be the prime target of the churches when they seek Christian tolerance and understanding in the field of employer-employee relations. I don't know exactly how it can be done but I should think it essential that the churches should make it clear that those who receive salaries and wages are not considered by the churches to be their main targets for improved behavior just because of their numerical strength. They should not only try to get amongst employers a greater reliance on Christian concepts but should also make it obvious that this is a dominant aim. In the Law there is a saying that it is not only vital that justice should be done but it is just as vital that justice should appear to be done.

RELIGIOUS LEADERS SHOULD HEAR LABOR'S STORY

WHY make a special effort to get labor's story to the priests, rabbis, and ministers of your community?

1. Labor and Religion should be natural allies. Jesus was a carpenter and "the common people heard Him gladly"; John Wesley preached to miners in the open air. And prophetic religion, whether Jewish or Christian of whatever variety, has ever stood for social justice.

2. You are yourself (aren't you?) both a union member and a church member. Then why not be equally proud of both? Did you ever talk to your pastor about your union? Does he know you are active, or do you avoid letting church people know? Your church should be helping you to be a better union member; but if its leaders know nothing of unions, how can it help you?

3. The clergy are undoubtedly the most influential "pub-

lic opinion" group in most communities. If they understand how unions operate, their importance in the life of the community, your community services program, your democratic procedures—then if you have a just strike, or need friends, they can help immeasurably.

4. Reactionary and anti-union groups are reaching the clergy with such publications as "Faith and Freedom" (Spiritual Mobilization), the NAM's "Dateline," and "Christian Economics," sent them free—moulding viewpoints quite opposite to most of labor's. Your story needs to be told.

In short, it should be obvious that religion and labor, often far out of contact in any real sense, ought to be "walking together," and that labor groups should support such efforts.



EDWARD P. MORGAN

Virginia! Feels We Should Join the World

Excerpted from the nightly broadcasts of Edward P. Morgan, ABC commentator sponsored by the AFL-CIO. Listen to Morgan over the ABC network Monday through Friday at 7 p.m. EST.

ON THE FOOR of the House one day, Rep. James B. Utt, a Republican from Southern California, delivered a doleful speech. He started out by reminding his colleagues that on the first day of this session he had introduced a bill to "rescind and revoke membership of the United States in the United Nations and the specialized agencies thereof. . . ."

It didn't take him long to make his reasons plain. As he surveyed the brooding, beclouded horizons of the globe he liked nothing of what he saw and he blamed it all, in effect, on the UN as the root of all evil. "The power, the honor, and the prestige of America have fallen from their high point in 1945 to an absolute zero today," intoned the Hon. Mr. Utt as if he were reading the Republic's epitaph. Indeed it is a wonder that he even bothered to deliver his funeral oration because he clearly believes that the United States has already been dealt a mortal blow by entangling alliances with and through the UN. "This conversion of our limited republic to an unlimited democracy," he declared abruptly, "is a death blow to our nation."

Rep. Utt's version of history and his vision of the present danger, bizarre as they are, cannot be carelessly brushed aside. His logic is opaque but his feelings are clearly genuine and they are shared by a frustrated but vocal minority of citizens who will do their utmost to block congressional authorization of the \$100 million subscription Pres. Kennedy wants for the UN bond issue to keep that organization a going concern.

This school, or perhaps it should be called a kindergarten, of thought is also behind the charge that the Pentagon has been "muzzling" patriotic anti-Communist sentiments of the military brass, a charge brought under official public scrutiny as a Senate subcommittee opened hearings on the subject. The reasoning of Rep. Utt and his friends is overwhelmingly simple. If something happens in the world we do not like we either ignore it as if it didn't exist or we run up the flag, roll the drums

and rush out and change it. Our objective: total indifference or total victory; in other words we play to win or we don't play.

In the good old days before Korea this is the way we played or at least this is the way we told ourselves we played. But this handy though outdated and dangerously oversimplified formula is being replaced by the realization that we may not necessarily win them all, that our will may now be opposed by forces of equal strength. It is this painful change which understandably infuriates generals, admirals and amateur civilian dabblers in the risky game of international politics—especially when they are told that partly due to the existence of a gadget known as a nuclear warhead, their own neatly-packaged solutions are not adequate.

There are sincere citizens who cry that anything short of "total victory" is appeasement, surrender. Admittedly there is a danger of being so benumbed by the threat of nuclear war that our foreign policy becomes impotent but, taking the wagonload of fragile complexities into consideration, neither our allies nor our adversaries are reacting as if we were impotent.

Perhaps what we are in the process of surrendering is a narrowly nationalistic point of view. Even while Rep. Utt was addressing Congress, the town of Redding, Conn., was in something of a turmoil over an editorial in the Joel Berlow High School paper attacking patriotism as "stupid." This was enough to mobilize almost instant protest from the American Legion, concern by the chairman of the school board and criticism from the Republican town committee. Indeed there was a public meeting on the issue.

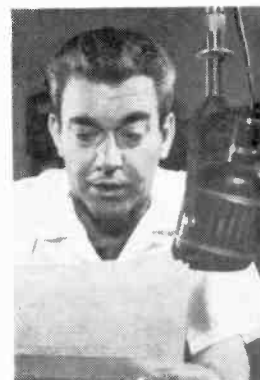
The editorial, entitled A Higher Loyalty, was written by the 17-year-old editor, Virginia Olsen. Her theme was that patriotism, in a narrow sense, had outlived its usefulness and needed to be replaced by a "loyalty to the world."

Principal Roy B. Briggs says he and the faculty feel the school paper should be a forum for opinion, where students have a right to say what they please and then, if necessary, answer to the consequences.

Judging by the short-term consequences of bitter protest, Virginia may be a little before her time and she may have expressed her hopes with the callow impatience of incautious youth. But the consequences in the long run will be far more disastrous if we do not realize that we do owe a loyalty to the human race. This does not mean disloyalty to our own country or its foundation principles. It means a recognition of the fact that we are a part, a large and influential part, of an international neighborhood but not one in which what we say always goes.

Rep. Utt seems tired, discouraged and irritated with the times and would like, in effect, to have us resign from the world. Virginia wants us to join it, risks, wars and all. With or without a Santa Claus, Virginia, I'm with you. Where else is there to go?"

ON LAND, SEA, AND AIR, KMPC COVERS NEWS



Station KMPC of Los Angeles—where the engineers are members of Local 45—goes all out in newscasting. It maintains one of the busiest news departments in the nation—using two helicopters, four mobile ground units, 18 local newsmen, and 30 national and international correspondents.

In the recent Angeles National Forest fire, from the fire's first alarm, it provided live reports from helicopters and ground units. It brings its listeners traffic information from the air and the highways. A two-channel shortwave radio links individual units with each other and with seven reception and transmission points at the station.

A group of 23 private boat owners—the local power squadron—gives periodic reports on wind and sea conditions and other news of Southern California waters.

The station has won several awards for its aggressive news coverage. As one fellow said, KMPC covers LA like the smog.

PICTURES AT LEFT: Top, a KMPC mobile cruiser speeds down a Los Angeles freeway, following a lead. Center, a KMPC newsman talks marine news with a member of the power squadron. Bottom, an aerial traffic reporter studies afternoon traffic.



ENGINEER Ron Gay, above, originated the station's worldwide monitoring service. Three large receivers and two tape recorders cover 24 foreign countries. Broadcasts are received and taped throughout the night.



SIGALERT is a radio communication system by which LA police, fire and CD authorities can speak directly to a wide audience through a cooperative net. Loyd Sigmon, above, engineering director, developed it.

ITALIAN MONEY... AMERICAN WORKERS...

A Winning Combination

Italian Ownership Revives U. S. Firm; Fair Labor Standards, Union Labor Prevail

DAVID L. PERLMAN
AFL-CIO News

EXPANDED world trade has bread and butter, meat and potatoes meaning to some 3,400 workers who make Underwood typewriters at a 50-year-old red brick factory in Hartford, Connecticut.

They have seen money and management imported from Italy revive a company which in 1959 was on the verge of bankruptcy.

They have seen both wages and employment rise, while production costs declined. And on each typewriter coming off the assembly line goes the union label of the Machinists.

They have seen exports of Underwood typewriters to other nations tripled in two years.

And they have shipped Hartford-built standard and electric typewriters to Italy at the same time Italian-built portable typewriters and business machines were being channeled into the United States through Underwood sales offices.

The purchase of the Underwood Corporation by the Olivetti Company of Italy in the fall of 1959 was the type of man-bites-dog story that created a sensation in the American business community.

"Everyone knew" that you could produce goods cheaper in Europe—particularly in manpower-surplus countries such as Italy—than in the United States. America's chief "asset" was its management knowhow and its advanced technology. Or so the fable went.

To help separate fact from fiction, a member of the Olivetti management team—Sergio Pizzoni-Ardemani—agreed to meet recently with AFL-CIO Research Director Stanley Ruttenberg and his staff for an around-the-table, no-questions-barred discussion.

Pizzoni-Ardemani is special assistant for international affairs to Ugo Galassi, president of the Underwood Corporation.

Articulate and world-minded, he is as much at home in Washington, New York, and Hartford as in Rome, Milan, or Ivrea the ancient community where the strikingly-modern Olivetti home plant rests at the foot of the Italian Alps.

This is a company which competes aggressively for sales in more than 100 nations, which operates plants in half a dozen countries from Britain to Argentina. Amidst the gleaming complex of modern factories in its home base at Ivrea is a small, anachronistic red brick building which strangely resembles Underwood's Hartford plant.

As Pizzoni-Ardemani relates the story, the resemblance is no coincidence. The name of Underwood was synonymous with typewriters more than a half-century ago when Camillo Olivetti, an electrical engineer who had toured the United States and taught at Leland Stanford University, returned to Italy to found that nation's first typewriter factory.

The men who run Olivetti—and now Underwood—are not sentimentalists, however. They don't sink millions of dollars into an enterprise because a company patriarch is reputed to have gazed in admiration at a red brick factory in Hartford. And they don't produce—certainly not for export—typewriters which they could manufacture markedly cheaper or more efficiently in Italy.

Any American manufacturer who moves to Europe to take advantages of presumably lower wage rates "is making a great mistake," Pizzoni-Ardemani emphasized.

There are many and valid reasons, he said, for American firms to set up plants in Europe and for European firms to establish manufacturing operations in the United States, but wage rates are not among them, he declared.

Labor costs is the "last element" to be considered

in going into another country. Any temporary advantage that might exist, he said, is "only transitory."

Mass production, Pizzoni-Ardemani emphasized, is the key to Olivetti's operations, and the company has found production costs in the United States and Italy "almost equal."

He pointed out that there is no United States tariff on typewriters, so that Olivetti's decision to expand and modernize the Hartford plant for larger-scale standard and electric typewriter production was not based on any desire to produce in a protected U. S. market. It was reached on the basis of production efficiency.

Galassi, after declaring firmly that "it is not true that higher wages in the United States are pricing American products out of the world market," said his company expected to "make a little on each typewriter and sell a lot."

"We won't price our typewriters to make a profit when we only operate at 50 percent of capacity," he said.

It would have been absolutely useless for the company to embark on such a major enterprise "unless we knew we could count on the cooperation of labor." It would have been "folly" he said, to seek to improve production "in an atmosphere of antagonism," he said.

Insistence on fair labor standards has proved sound business policy, he said, despite temporary problems such as the time when a number of Italian manufacturers attempted to boycott the company's products because the firm paid the same wages at a new factory in depressed, low-wage southern Italy that it paid to its workers in the North. This, a segment of the business community insisted, was setting a bad and dangerous precedent. Olivetti nevertheless maintained the policy.

FIRST INTERNAL DISPUTES CASE

The International Brotherhood of Bookbinders is the first AFL-CIO affiliate to feel the sting of the internal disputes Constitutional amendment adopted by the Federation's recent convention in Miami Beach.

AFL-CIO President George Meany has notified all affiliates that an Executive Council Subcommittee, consisting of Secretary-Treasurer Schnitzler and Vice Presidents Beirne and Hayes, has found that the Bookbinders are in non-compliance with a determination of the impartial umpire.

The subcommittee's findings relate to the refusal of Bookbinders Local 119 to withdraw from what Meany termed "a raid on Local 107 of the International Brotherhood of Pulp, Sulphite and Paper Mill Workers at Card Processing, Inc., Brooklyn, N. Y."

This means that the AFL-CIO, upon request, will use its resources to support Pulp and Sulphite and also to deny the Bookbinders the right to file any complaint against other unions until the "non-compliance is remedied or excused" under terms of the AFL-CIO Constitution. (PAI)

Kennedy Asks Congress For Trade Law Changes

President Kennedy has called on Congress to enact a sweeping revision of U. S. trade policy to increase exports, with built-in adjustment provisions to aid workers, farmers and businessmen who suffer damage from a resulting increase in imports.

The heart of the President's message was his request for a Trade Expansion Act of 1962 giving him authority to negotiate multilateral tariff reductions and to eliminate gradually all tariffs on certain products traded with European Common Market countries.

In the trade message, Kennedy outlined trade adjustment provisions to provide workers who lose their jobs or suffer under-employment as a result of increased exports, what he termed readjustment allowances of up to 65 percent of their average pay for as long as 52 weeks (65 weeks for workers over 60), less any unemployment insurance benefits available to them.

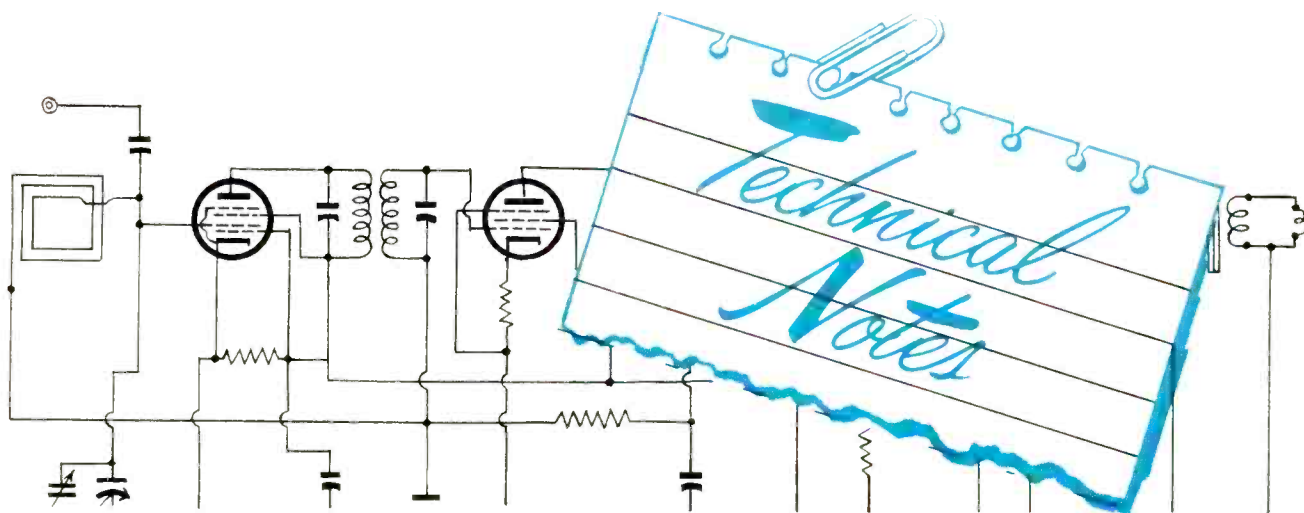
They would also be given assistance in developing higher skills and financial aid in relocating to other areas if necessary to find suitable jobs.

Businessmen and farmers adversely affected would be given tax benefits, loans or loan guarantees to encourage modernization and diversification, plus technical information, advice and consultation in planning their approach to the problem.

Such adjustment protections were strongly urged in a resolution by the recent AFL-CIO convention at Miami.

Mr. Kennedy pointed out that some 30 percent of U. S. exports now goes to present and prospective member countries of the European Common Market. Increased trade with these and other countries, he said, would help the nation expand its economy, prevent inflation, correct the adverse balance of payments, promote the strength and unity of the West and aid the developing nations of the world. On the whole, he said, American workers, farmers and businessmen would gain rather than lose from expanded trade.

"Several hundred times as many workers owe their jobs directly or indirectly to exports as are in the small group—estimated to be less than one-half of 1 percent of all workers—who might be adversely affected by a sharp increase in imports," the President observed.



CONELRAD TO GO

The Conelrad system of broadcasting during national emergencies, which has been a mainstay of civil defense for several years, is about to be scrapped for something new, according to reports in Washington.

The Defense Department, says a *Washington Post* reporter, plans to establish a greatly modified system "designed to overcome acknowledged weaknesses in the existing system."

Officials of the Office of Civil Defense at the Pentagon refuse to comment on reports of impending changes. However, it is known that OCD has won the approval of the Joint Chiefs of Staff and the Federal Communications Commission for a drastic overhaul of the emergency broadcasting system.

Reports are that details of the new plan have not yet been worked out. Pentagon officials are reluctant to discuss the matter because the Canadian government has not yet approved changing the system. Conelrad is a joint US-Canadian venture.

The change is prompted by today's great emphasis on guided missiles. Missiles don't use broadcast signals for homing on targets, as do manned aircraft.

CLOSE-UP VIEWS OF THE MOON

A six-pound television "eye" mounted on the Ranger III space vehicle is expected to flash back to Earth the most dramatic and detailed views ever seen of the lunar surface during the last half hour before the vehicle crashes into the moon. U.S. scientists hope to reach the lunar target this year.

Peering through a specially-designed telescope, the rugged camera is designed to go into operation about 2500 miles above the moon's surface. It will take a new picture every 13 seconds as the vehicle hurtles toward the moon at about 5000 miles per hour, providing a series of increasingly detailed views down to an altitude of about 15 miles. The images, transmitted

back to observers on earth, are expected to show features on the moon with up to at least 35 times greater resolution than has ever been achieved when looking at the moon through the Earth's atmosphere.

The electronics of the compact television camera have been developed by the Radio Corporation of America for the Jet Propulsion Laboratory of the California Institute of Technology, prime contractor to the National Aeronautics and Space Administration in the Ranger program.

Built into a circular package only seven inches in diameter and three inches deep, the camera is fitted directly into the end of a special optical telescope developed by JPL scientists to provide the equivalent of a 40-inch focal length instrument in a package that is only 14 inches long. The camera incorporates a number of special physical and operating features to meet the unusual requirements of the Ranger project. Such features as high sensitivity to light and contrast, ruggedness, light weight, power economy, simplicity of operation, and resistance to high temperature in pre-flight sterilization in order to avoid contaminating the surface of the moon, were given design attention.

The result is an entirely new type of television imaging device for space application—an electrostatically focused and deflected Vidicon camera using a specially developed RCA photo-sensitive material on the face of the tube. Mr. Mesner, Manager of Space TV Systems, RCA, said that the new material combines fast response with a long "memory," so that the camera can be operated with a fast exposure and yet retain the image on the sensitive tube face for a long period while the information is read out by an electron beam for transmission to the ground in the form of television signals.

In addition, Mr. Mesner said, the material can be rapidly erased in order to clear the tube face for the next exposure. The erasing is performed by flooding the material with light from six small filament lamps mounted around the tube face and rapidly scanning the

face with an electron beam of increased intensity. The use of the electrostatic principle permits a design free of the magnets that add bulk and weight to conventional cameras. In the conventional types, such as the RCA-developed cameras used in the Tiros weather satellites, electromagnets are mounted around the Vidicon tube to deflect the electron beam as it sweeps back and forth across the surface of the tube to read out the stored image.

In the Ranger III type camera, the deflection is performed by charged plates printed on the interior of the tube to provide a light-weight and rugged structure. The electron gun structure and the deflection system used with the special tube were developed by General Electro-dynamics Corporation.

During its operation in the last half hour of the Ranger's flight, the camera is to be controlled automatically to provide a picture every 13 seconds. The operating cycle starts with an exposure of 20/1000 of a second through the automatic shutter. During the next 10 seconds, the electronically stored image on the sensitive face of the tube is read out by the electron beam from the gun at the rear of the tube. In the final three seconds, the sensitive surface is completely erased in preparation for the next exposure. After nearly 140 pictures were taken and flashed back to earth, the camera was to crash to destruction with the vehicle on the surface of the moon.

Since Ranger III missed its target by at least 22 thousand miles in a recent shot, no useful pictures were received; complicated by the failure of a re-positioning mechanism for the directional antenna, reception of the Vidicon's signals was overwhelmed by high noise levels.

A-M STEREO STUDY PLANNED

A study of proposals for stereophonic radio broadcasting in the AM frequencies will be undertaken soon by the Electronic Industries Association.

The purpose of the study, EIA emphasized, is to lay the basis for determining whether preparation of a formal proposal to the Federal Communications Commission on AM stereo would be warranted.

More than 50 FM stations have gone on the air with stereophonic broadcasts since the FCC authorized the service last spring. The authorization was based on technical studies made at the FCC's request by the EIA-financed National Stereophonic Radio Committee.

C. J. Votava of the Delco Radio Division, General Motors Corp., has been named chairman of an AM Stereo Study Group for the association.

"The immediate goal of the group will be to determine the necessity of a more complete, thorough survey of the AM stereo situation," Mr. Votava said in accepting the chairmanship. "If the initial study indicates need and interest in the possibilities of AM stereo, a pro-

gram similar to that undertaken for analysis of the FM stereo would be recommended to EIA."

Manufacturers, broadcasters, and other companies having an interest in AM stereo were invited by Mr. Votava to submit names of their representatives to him in care of the EIA Engineering Department, 11 West 42nd Street, New York 36, New York.

Mr. Votava also asked companies having technical proposals covering AM stereo systems to submit to him brief statements describing such systems. These would be used as background information in the initial phases of the study, he said.

FIRST CATV MICROWAVE

The first grant of a private microwave system to bring TV signals to a community antenna system is on the way. Late in December the FCC instructed its staff to grant the application of Community Television Systems of Wyoming, Inc., for a privately-owned system to bring programs from two Denver, Colorado, stations to a distribution point in Casper, Wyoming. The Wyoming applicant proposes to carry the Denver signals 200 miles via a three-hop relay system using 12,000 mcs.

SUPERCONDUCTING MAGNET



A new way to make electromagnets that are far more powerful for their size than any ever known has been discovered by Bell Telephone Laboratories. One of the super magnets is being tested above by Bell scientists. It's the small cylindrical object being removed from a helium bath at 450 F degrees below zero.

Here's how the new magnet works: At temperatures near absolute zero, certain kinds of wire (suited for electromagnets) become superconducting. This is fine. It cuts down on power needs. The trouble is that a strong magnet itself destroys superconductivity.

Bell scientists discovered a new superconducting wire compound of niobium and tin and then found it would remain superconducting at low temperatures, even in strong magnetic fields. This will permit future magnets operating at low cost and using a fraction of the space taken by conventional electromagnets.



STATION BREAKS

\$1.65 MILLION IN BACK PAY

The National Labor Relations Board collected back pay of \$1.65 million last year for illegally-fired workers—up 95 percent over 1959 collections and 31 percent higher than the 1960 total, NLRB General Counsel Stuart Rothman has announced.

In addition to back pay, 2,349 employees illegally discharged were offered reinstatement, and 1,591 accepted; 31 formal back pay proceedings were initiated—more than in the three preceding years combined. Back pay ranged from \$11 to \$8,000 a person. Reporting on the law and its enforcement, Rothman said:

"It would be better to prevent violations . . . but if an employee is entitled to these remedies because of unlawful discharge, vigorous enforcement of the statute requires as speedy reimbursement and reinstatement as possible."

STRIKE RECORD: 0.15 PERCENT

Lost in the shuffle of year-end analyses and prognostications for 1962 was a report from the Labor Department putting into proper perspective the line, so beloved by the employers, that unions are "strike-happy."

There were fewer strikes in 1961 than in any year since the end of World War II, the Labor Department reported, and the total lost working time due to labor disputes was recorded at fifteen-hundredths of 1 percent.

The Labor Department's report goes deep, covering all work stoppages involving six or more workers and lasting a full shift or more.

Given the provocations of management, the "hard" bargaining line and the aggravations of automation and runaway plants, the 1961 strike record is a tribute to the responsibility of the trade union movement and its dedication to the national interest.

Why Our Readers Who Have Moved To A New Address Must Help Us Prevent "Throwing Money Uselessly Down The Drain"

Effective as of January 10, 1962, the U. S. Post Office Department doubled the rate formerly charged for forwarding this publication to a new address or returning to us undeliverable copies. Prior to that date, every time a member moved and neglected to notify *The Technician-Engineer* of that fact, the Post Office would return the undeliverable copy, and if they had it, notify us of the new address. For this service we paid 5 cents per copy so returned. Several years ago it was only 2 cents, then it went to 5 cents.

Now however, the rate has been doubled. We must

now pay 10 cents for the same service. And when we receive thousands of changes within the month, it adds up to a pretty tidy sum.

To meet these ever increasing costs, we must ask our subscribers to lend their assistance.

How can YOU help?

Notify us promptly when you move or expect to move, preferably as soon as you know what your new address will be.

Use the "change of address coupon" which appears below. We thank each and every one of you who will assist us in this manner!

In order not to miss any issues of *THE TECHNICIAN-ENGINEER* and to keep our mailing lists up to date, subscribers who have moved or who expect to move soon, are urged to fill out the information requested and mail it IMMEDIATELY to *The Technician-Engineer*, 810 Rhode Island Avenue, N.E., Washington 18, D. C.

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