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OCTOBER, 1939

The World Wide Listement

PROGRAMS OVER WRUL (formerly W1XAL)

WORLD RADIO UNIVERSITY

World Affairs

World Peace

Literature

Youth

Languages

Economics

Music

Radio Mechanics

Sciences

Aviation



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Chairman of Board 1938-39

Honorary President of International
Chamber of Commerce.
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for Peace.

BOARD OF TRUSTEES

of the

WORLD WIDE BROADCASTING FOUNDATION



Walter S. Lemmon,
Founder and President
Radio Engineer and Inventor.

* Purpose *

The World Wide Broadcasting Foundation, a non-profit organization, is formed

To foster, cultivate and encourage the spirit of international understanding, and to promote the enlightenment of individuals throughout the world.

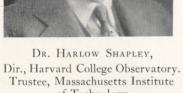
To develop, produce and broadcast programs of a cultural, educational, artistic and spiritual nature, and to arrange for the interchange of constructive radio programs throughout the world.

To study, develop and disseminate radio programs which will enhance the cultivation of spiritual values, and tend to promote the growth of individual character.

— Extract from the Charter of the Foundation



Dr. William Mather Lewis, President, Lafayette College.



Dir., Harvard College Observatory.
Trustee, Massachusetts Institute
of Technology.



JAY DOWNER, Consulting Engineer. Board of Design New York World's Fair.



Frank L. Perrin,
Editorial Board,
The Christian Science Monitor.

The World Wide Listener

Vol. II No. 1.

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WORLD WIDE BROADCASTING FOUNDATION University Club - - Boston, Massachusetts, U. S. A.

A Message from the Founder

The idea of a powerful radio station conceived and operated as a philanthropy solely in the interest of the listeners themselves, is new to American radio.

October marks the opening of our fifth college year of broadcasting. A vast and steadily growing multitude of listeners in all parts of the world attest the possibilities of this experiment.

As you, our listeners, have learned to rely on the integrity of these broadcasts kept free of the sway of commercialism or the politics of propaganda — you have helped us toward building a new form of American institution — a World Radio University to serve all nations.

With this issue of our program magazine we are endeavoring to preserve in printed form some of the outstanding thoughts broadcast over WRUL in recent months. Our Board of Trustees is grateful for the evidence of increased support of this new idea and to the many colleges and universities who are cooperating toward this purpose.

May we continue to exemplify our motto — "Dedicated to Enlight-enment".

Walter S. Lemmon
PRESIDENT AND FOUNDER.

World Coverage of Station WRUL

WRUL's audience is primarily an international one, with regular listeners in all five continents. Letters are being regularly received from listeners in the following places:

United States of America (all sections) Canada — Alaska — Hawaii The British Isles (Eire, Scotland,

England, Wales, Channel Isles)

Mexico Norway Cuba Portugal Haiti France Bermuda Switzerland West Indies Belgium Peru Germany Ecuador Holland Czechoslovakia Honolulu Italy Tasmania Malta Algiers Brazil India Australia Bahamas New Zealand Uruguay Denmark Turkey South Africa Sweden

Many of the programs of WRUL also interest listeners in the three Americas, and may be heard on any standard all-wave receiving set, with the following restrictions:—

21.46 Mc (14.0 m) & 26.5 Mc (11.3 m)
— for listeners in the Rocky Mountain section of the United States and West Coast.

15.25 Mc (19.6 m) & 15.13 Mc (19.8 m)
— for listeners west of Ohio and south of Virginia.

11.79 Mc (25.4 m) & 11.73 Mc (25.6 m)
— for listeners west of New York
state, and south of Delaware,
as well as in Canada.

6.04 Mc (49.6 m)

— for listeners practically

for listeners practically anywhere in America.

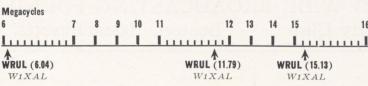
DIAL CHART

Short wave broadcasting is confined to five principal narrow bands, located approximately at 16, 19, 25, 31, and 49 meters. In the eastern part of the United States at this season of the year, for example, the 19-meter band is best from noon to early evening, and the 25 and 49 meter band later. This may vary somewhat in different parts of the country. One thing to remember, wherever you are, is to turn on plenty of volume and to tune slowly. The more carefully you go over the dial, the more likely you are to get the best results.

Frequencies Assigned to Our Transmitters

STATION WRUL	STATION WRUW
6.04 Mc (49.6 m)	*11.73 Mc (25.6 m)
*11.73 Mc (25.6 m)	*15.13 Mc (19.8 m)
11.79 Mc (25.4 m)	26.5 Mc (11.3 m)
*15.13 Mc (19.8 m)	
15.25 Mc (10.6 m)	

15.25 Mc (19.6 m) * Denotes Pan-American government channels.



Democracy at the Crossroads

by WILLIAM B. DICKSON

"History shows that great economic and social forces flow like a tide over communities only half conscious of that which is befalling them."

— John Stuart Mill

Dr. Nicholas Murray Butler, President of Columbia University, says: "If democracy is to maintain itself against attacks from without and within, it must look to its foundations".

One of the gravest errors in dealing with social and economic problems, is to assume that our democratic institutions are static and self-perpetuating. We live and plan as though our social order were as changeless as the Arcadian scene depicted on Keat's Grecian Urn.

The Dynamic Universe

The universe is not static but terribly dynamic. We are only beginning to realize that human relations, social, economic and political, are subject to this same law of change. We live in an era in which the tempo of change from the material standpoint has been so accelerated that we are in grave danger of losing the ability to control the inter-relationships of these three phases of civilization.

The men of 1776, who achieved our independence, were nearer akin economically to the Egyptians of the Exodus than to their own descendants of the present generation, with its bewildering inventions. Democracy in political relations was achieved by the Revolutionary Fathers. No man could then have foreseen that in a few generations there would come a revolution in industry which would produce a condition where the industrial relation of citizens to each other would be vastly more important in its effects on living conditions, than their political relations.

Nature of Government

Our free institutions are not static, but dynamic in the highest degree, and every generation must learn to adapt the vital forces of democracy to its own requirements. Our government, republican in form, democratic in principle, is not an achievement in the sense of being a completed work. It is rather a process which must be subjected to the constant supervision



William B. Dickson

As a retired industrialist, Mr. Dickson has been in an excellent position to note the changes in American democracy during the past decade. A former partner of Andrew Carnegie and a former Vice-president of the United States Steel Corporation, he has from time to time expressed views that have carried considerable weight in American industrial circles.

The following excerpts are from an address delivered by Mr. Dickson at the Wellesley Summer Institute for Social Progress, and broadcast by the shortwave station of the World Wide Broadcasting Foundation.

of patriotic men if we are to avoid the melancholy fate of other democracies and prevent a retrogression to the crude forms of government by classes, which must be supported by force instead of reason. We need to emphasize the meaning of that phrase of the fathers: "Eternal vigilance is the price of liberty".

External Influences

In our generation, this vigilance is not to be directed so much to influences outside of our national boundaries as to tendencies within. The protection of our free institutions from outside aggression is a simple proposition and one which, if the occasion ever arises, will find our people united in a common purpose. Those developments within our own social structure which tend to undermine our free institutions are more dangerous.

In 1776, politics and religion were the principal cohesive factors in the social organization. Manufacture and commerce, while important, had not yet become absolutely essential. Since the Civil War, the development of the use of machinery and the growth of large industrial units, have produced social and economic changes which, to future ages, no doubt will be the mark of a distinct era in history. Like all transition periods, this change has produced unforeseen results, not all of them beneficent.

Until the beginning of this century, men who were restless, or whose ambitions had been thwarted, or who had been unable to adapt themselves to the new industrial conditions could find an outlet for their energies and their zeal for independence, by taking Horace Greely's advice, "Go West, Young Man". It is to such men that we owe the building up of our great western commonwealths. That avenue of escape is no longer open. Even if the land were available, recent events indicate that production in food products is nearing the saturation point.

Practical Democracy

Since the World War, international events have brought into clear focus the divergence of two political philosophies, democracy and autocracy. My theme is epitomized in the question, "Is democracy a practicable form of government?" Considered from a social and economic rather than a political point of view. The negative side of this question, however, does not lack the support of eminent men.

It may be answered with some justification that our form of government has worked satisfactorily for more than 160 years. But compared with the lives of some of the nations

of antiquity, that is a mere watch in the night. The passage of time inevitably implies change and the conditions of a past era cannot be assumed in the present nor projected into the future.

New Governmental Era

When the Archduke Ferdinand of Austria was killed in 1914, it marked the end of an era which to future historians, will be as clearly marked as the fall of Rome, the Italian Renaissance, or the discovery of America. We are in a new era, the basic governmental conditions of which are still to be determined; and that is a task which must be faced with the grim realization that its greatest problem is to determine the proper relations of capital and labor. This problem demands immediate attention. Any policy of laissez faire would be as foolish as the fabled attempt of the ostrich to escape its foes by burying its head in the sand. Like the traveler before the Sphinx, we must solve this riddle — or be destroyed.

Lest I be misunderstood before I have had an opportunity to make my position clear, let me emphasize the fact that I believe in it and hope it will survive. But I am certain it cannot survive unless vital adjustments are made to bring it into complete harmony with the principles set forth in the Declaration of Independence and the Constitution of the United States.

Unity of Labor Elements

Andrew Carnegie was once asked,—
"Which is the most important factor
in your business, Capital, Management, or Labor?" He answered —
"Which is the most important leg
on a three-legged stool?" This is a
complete answer and, in its implications, not only presents a realistic
picture of the problem confronting
our age, but also indicates the solution
of that problem.

If our industries could have faced the business collapse of 1929 with the three elements, capital, management and labor, as equal partners, each appreciating the essential identity of interest, the further demoralization, which is inevitable under the dole system could have been averted.

Employers have the opportunity to settle this supremely important issue by changing the status of their employes from that of hirelings, insecure even in that status, to that of equal partners, with all that this implies. In the event of their failure to act

promptly, the American people must find a way out of this crisis by what will seem to be radical legislation.

Tragedy of Conflict

A philosopher has said that the greatest tragedies are due not to conflicts between right and wrong but to those between right and right. The tragedy of the present conflict between organized capital and organized labor, lies in the fact that a victory of either of these opposing forces will only tend to perpetuate the vicious idea that they are necessarily arrayed in hostile camps; and that their normal relations are those of warfare, or, at best an armed truce. They should both learn to work together in harmony.

Some Historical Facts

The date of 476 A.D. is accepted by historians as marking the beginning of the Dark Ages, a period of five or six centuries identified by insecurity of life and property and decline of culture. As we sit here, the modern Goths are on the march. I do not use this name as a term of reproach. But, under present conditions, they are a menace to our social order; first, because they have been disinherited by losing the old pioneer status of family economic independence; and second, because of this loss, many of them are so intensely concerned about their condition that they do not have a clear sense of the relation of cause and effect. This is strikingly evident in the building trades. Workmen are protesting against high rents, while the wages demanded by them, the highest on record, are the direct cause of these high rents.

To answer my original question, democracy is not a practicable form of government in a nation where the men and women laboring in our industries have lost their economic independence, the very essence of democracy, but who still retain their status as voters.

Workers Are the Masters

It is said that after the passage of a reform bill by the British Parliament, which greatly extended the franchise, the Prime Minister said to an associate; "Now we must educate our masters". By sheer force of numbers, the workers in our democracy are now potentially our masters, and it is both

the duty and the privilege of the representatives of Capital and Management to educate them in some of the elementary problems of trade and finance, and thus fit them to function intelligently as equal partners in our industries

No Utopia can be founded overnight; but a first step can be taken—and that is to consider the three partners, capital, management and labor, as wage earners, each person receiving the wage which has been established, for the time at least, by the social order, and then to share profits on a plan based on the real contribution to the enterprise, as shown by his stock holdings, his salary, or his wages.

To an ultraconservative, this proposed radical advance in the science of human relations may seem to be visionary. The philosopher, Kant, recognized the fact that the advocacy of his Categorical Imperative (which, after all, is only restatement in different words, of the Golden Rule) as a rule of conduct, might seem to be "a counsel of perfection". In this connection he said:

"Let us live up to such a principle and we shall soon create an ideal community of rational beings; to create it, we need only to act as if we already belonged to it. We must apply the perfect law in the imperfect state. It is a hard ethic you say; but only so can we cease to be beasts and begin to be gods".

Democracy Must Progress

In conclusion, whether or not democracy is a practicable form of government is still an open question. It is being challenged today, not only in continental Europe, but even in England. If it is to survive, there can be no question but that we must face the fact that democracy is terribly dynamic. It is not an automatic system, which will run of itself by the mere machinery of administration. Perpetual motion is not attainable in social relations any more than in mechanics.

America is at the crossroads! In making a choice between these roads, it will be well for all of us, with renewed courage to keep in mind the stern fact that the Dark Ages came after, not before the cultures of Greece and Rome.

EDUCATION FOR DEMOCRACY

WRUL broadcast more than ten hours of the "Congress on Education for Democracy", held at Teachers College, Columbia University

Excerpts from "Think" magazine are printed below:

The Rt. Hon. The Lord Josiah Stamp, Chairman, London, Midland & Scottish Railway.

"It does not seem that a congress like this can get far upon the great subject it has chosen without some statement of essentials. . . . As revealing and simple as any pronouncement I know is this:

"The essence of the democratic ideal is first of all the inviolability of the fundamental rights of the individual so that each individual may be free to develop the best that is in him. To make this liberty effective, we must have op-portunity to do those things we wish to do, provided they are not harmful to others. We must have freedom of speech, of conscience, and of thought. To make this liberty effective we must have a free educational system which will produce men and women who can think logically, dispassionately, and objectively, and will produce leaders who can direct the affairs of state wisely and well."

Winthrop W. Aldrich, Chairman, Chase National Bank.

"The aim of education in a democracy must be to teach the people to think with discrimination and wisdom, to so instruct them that they are able not only to think but think things through, so that they can

distinguish between the sound and unsound, between propaganda and education, and between the false and the true. In a democracy, moreover, it must be the aim of education to teach the citizen that he must first of all rule himself, and that in ruling himself he must not forget that every act he performs, in whatever walk of life he may be, affects ultimately every other person in his community. This becomes increasingly true as our population increases and our economic and political life become more complicated. The citizen of a democracy above all others must never be permitted to forget that 'He who ruleth himself is greater than he who taketh a city'."

Dr. John W. Studebaker, United States Commissioner of Education.

"Education will not move democracy forward by merely teaching courses of study concerned with the democratic philosophy and principles. Such courses are necessary, but the every day teaching that is done in all sorts of fields from arithmetic to home economics, from physical training to psychology is pertinent to our problem of making democracy work. For democracy is not an election-day matter concerned merely with local, State and National Government. It is a way of living — of getting along

together — in groups of all kinds, in families, in associations, in unions and business organizations. . . . "

John Murray, Principal, University College of the South West of England, Exeter.

"Let me suggest what is distinctive in English education. By English, this time, I mean English. Let me illustrate from Latin Grammar: the verbs of teaching take two accusatives, the person taught and the thing. The English emulate these verbs. They instruct and they educate, having a double technique for a boy, — as a pupil and also as a person. Teach him the one way, and you help him to get on, and to live. Teach him the other, and you make him good to live with. Make a scholar or a scientist or an artist of him, if you can. But make a citizen of him you must."

Dr. Mildred H. McAfee, President of Wellesley College.

"Democracy needs to be thought as well as felt. Its basic principles need perennial reaffirmation on the basis of study, and if truth cannot lead to reaffirmation it must lead to modification. The techniques of democracy need practice and analysis and higher education is available as its aid here."

Program Planning

No phase of WRUL's activities is quite so important as the planning of programs; no broadcast is ready for actual presentation in the studio until the scripts are read and approved and every second of the program accounted for. There must be no chance for misstatements to go over the shortwave.

Since the Latin American programs are regular evening features of WRUL, special attention is given to arranging the scripts and selecting the music. Every attempt is made to arrange material for this broadcast, so that the program will serve to link the interests of North and South America into a united feeling of goodwill.

All extemporaneous programs are strictly taboo in WRUL's studios. Detailed planning is the watchword, which is never relaxed. Only through careful study of the radio interests of the nations of the world can the World Radio University meet the needs of its listeners in all lands.



Staff members, working on program details for the Latin American broadcast. Reading from left to right: Sr. Jose A. Godoy, chairman; Walter S. Lemmon, president of WRUL, Louise Ryerson, administrative assistant; Scott Killgore, technical assistant.

Understanding Music

by Donald J. Grout Ph.D.

Department of Music, Harvard University

Why Should We Talk About Music?

Our emotional response to music is something almost instinctive; indeed, it is so much a matter of instinct that it cannot be taught. But our understanding of music, or intellectual response, is different. It is not instinctive; it has to be learned; and fortunately it *can* be learned.

If you love music so much that you want to learn to understand it better, what is the best way to go about it? Unquestionably the very best way is to make music yourself, that is, to play or sing. An hour of playing or singing on your own account is worth ten of merely listening to someone else. If you sing in a chorus, for example, when you contribute something of your own, — no matter how modest that contribution may be—that is an ideal foundation for learning to understand music.

Importance of Hearing Music

The next best thing is to hear music, and to hear as much of it as possible. Concerts, phonographs and the radio are means of doing this. The advantage of phonograph records, of course, is that you can play anything you want at a convenient time, and can repeat a piece as many times as necessary.

In addition to making music or listening to it, — which are the funda-mental things — one can also learn to understand music by learning about its structure. How is a piece of music put together? What is it that makes a musical composition a complete, unified, well rounded work of art, and not merely a haphazard collection of sounds? Again, you may approach the understanding of music by way of the question of different styles. We know, of course, that a symphony by Haydn sounds quite different from a symphony by Brahms; but in just what does the difference consist? Even more interesting, why did Haydn in the eighteenth century write music of one kind and Brahms in the nineteenth century write music of another kind?



Donald J. Grout, Ph. D.

A member of Harvard University's Music Department, and a regular lecturer over the World Radio University, Dr. Grout has long been a popular figure with WRUL listeners, The following excerpts are from his first address of the Understanding Music series.

Historical Aspects

What forces in the history of civilization gave birth to such different things as the strangely beautiful songs of the fourteenth century, the mystical choruses of Palestrina in the sixteenth century, the grandeur of Beethoven's symphonies two hundred years later, and the nervous, dissonant music of many present-day composers? The history of changing musical styles is a part of the history of human culture, and it is impossible to study the one apart from the other. One of the most illuminating approaches to the understanding of music is to see it as it evolves throughout human history, and see how it is influenced in its growth and in its various forms by the same forces which shape other aspects of culture from age to age.

Music as we know it today is the youngest of all the arts. The Greeks, great as they were in the realm of

sculpture and epic poetry, had only the most rudimentary music. Even at the time of the renaissance, music in Europe lagged behind painting in its achievements. Its real growth into present-day forms does not get under way before the sixteenth century. By the nineteenth century, music was fully abreast of the other arts, and today it may be even ahead of them, at least with respect to the boldness of experimentation and the apparent possibilities of growth.

Music and the Arts

When we compare music with the other arts, we see that there is one outstanding point of difference, namely that music offers the only instance where the material and meaning are identical. A picture consists of lines, planes, surfaces, colors, masses, etc., but unless it is purely abstract, it also has a meaning in addition to all that; it "represents" something, a land-scape or perhaps a human figure, for instance.

In poetry the cadence of the lines, and the rhyme pattern, will have, as a rule, some meaning. This is not so of music; music does not represent anything except itself. A musical idea is the sound which you hear and nothing else. The meaning of a poem is something quite different from the sound of the words, the metre and rhyme-scheme; the meaning of a picture is something different from the lines, surfaces, and masses, but the meaning of a piece of music is the music itself. Beethoven once played one of his sonatas to a friend; at the end, the friend said, "beautiful! but what does it mean?"

"It means this", replied Beethoven—and played the piece over again. When you have once really heard any musical composition, you have heard all that can ever be said about what music means. The meaning is in the music itself, and nowhere else.

The Fourth Dimension

The material of music is sound, and sound is something which occurs in

the realm of time rather than of space. This is the second way in which music differs from the other arts. A picture exists in two dimensions, a statue in three, but a piece of music exists only in time, the fourth dimension of our world. This fact is fundamental in learning to listen to music. A picture or a statue you can study at leisure; it is always there. But music is always vanishing, and it must be grasped at the instant of hearing, or it is lost. In fact, the only way we can hold together all the parts of a musical composition is by remembering those parts which we have already heard.

Imagine for a moment, that you are in a tightly closed automobile with just a narrow crack out of which you can look. You are passing by a long building; you see first one wing, then the center of the structure until finally you have seen the whole facade. But this is never at one glimpse. Your picture of the whole is made by reconstructing the various parts into a unity by an act of memory. If you have observed closely and remembered accurately, you will have in your mind a picture of the building as a whole. Something, like this is the process of hearing a piece of music.

You need, therefore, first to hear vividly and second to remember accurately, for a piece of music is just as much of a structural unity as is a building.

Listeners Must Be Alert

You will have gathered from this, that listening to music is not merely a passive affair; you will never really hear music if you take it as a mere "tonal shower-bath", or if you sit through it in the state that has been well described as "a drowsy, reverie, relieved by an occasional nervous thrill". Music demands the active cooperation of the hearer, and this is the first lesson to be learned in approaching the subject. Once this habit of active listening is acquired, you will find that music will open out endless possibilities of understanding and enjoyment.

There are in general, three kinds of music (vocal, instrumental and operatic), and we shall be concerned with all three. Vocal music comprises solo songs and choruses, both of which may or may not have instrumental accompaniment. Under the heading, Instrumental Music, we distinguish music for one instrument alone, music for small groups of instruments (piano

and violin; string quartet, etc.), called "chamber music", and music for large instrumental groups, called "symphonic" or "orchestral" music. Opera is the combination of vocal and instrumental music with the addition of scenery, costumes and dramatic action.

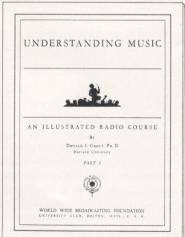
Music Open to All

Most important of all, we can learn to understand music, yes, even music which we are at first tempted to consider "beyond us". Understanding music is within the reach of anyone who is willing to try. It is not a matter of any mysterious "talent" or "gift". It does not matter whether at this moment you can sing or play a note.

If you have enough of an ear to tell the difference between Yankee Doodle and The Star-Spangled Banner; if you truly love music; and above all, if you love it enough to want to understand it better, then you can, and will. The growth of music goes hand in hand with the unfolding of the human mind in other fields, so that the development of music forms an integral part of the development of that culture which is our precious heritage from the past, and which it is our duty to hand down to the future.

UNDERSTANDING MUSIC - A WRUL COURSE

Started last year under the direction of Donald J. Grout of Harvard Music Department, the WRUL course in Understanding Music has proven such a worthwhile feature that it has been continued for the 1939–40 season. Dr. Grout presents a regular series of lectures which include instructive material, designed to aid listeners who are anxious to reach a greater understanding of music.



As a help to those who intend to enroll as regular students of Dr. Grout, the World Wide Broadcasting Foundation has prepared a Listeners' Music Notebook, which will be supplied at cost to those entering the course. This illustrated text material is particularly designed to aid students in following the course work. There are notebooks for Part One and Part Two, each book covering eighteen of the thirty-six lessons in the Understanding Music course.

Booklets will be mailed postpaid upon receipt of check or money order for \$1.00 each. Address all orders and requests for information to World Wide Broadcasting Foundation, University Club, Boston, Massachusetts.



(Left) Direct photograph of Mars as it now appears telescopically. (Center) Drawing of Mars, showing the disputed network of markings crossing the temperate zones. (Right) Photograph showing cloud in Martian atmosphere. (see arrows)

Our Neighbor Mars

by Loring B. Andrews Ph. D.

Chairman of WRUL Program Planning Committee

Take a dark, clear night, sometime before midnight, and look to the south and not very high in the sky, taking the brightest celestial thing you can find in that region and you'll be looking at Mars. It's exactly due south about half past eight standard time these evenings. It should have a yellowish to reddish color somewhat like the bright star, though fainter than Mars, a little distance to the right of it, the star Antares in the constellation known as the Scorpion.

First View of Mars

If you're seeing Mars for the first time now, as a result of this invitation to take a look at it, don't shed tears because it doesn't seem any larger than it does. Mars is just about half the size of the earth. Put a sphere only four thousand miles in diameter, 36,000,000 miles off in space and it will look small.

What new things have they discovered about Mars this summer? That revolves about another question; what's new to be found? Unfortunately, the idea of there being a Mr. and Mrs. Jones on Mars persists, like the unfounded faith that a lot of people have in reading their fortunes in the stars.

The idea of there being life on Mars wouldn't have started unless the planet showed some evidence of being able

to support life, so let's investigate. Mars possesses a day, a year and seasons; a day 37 minutes longer than ours, a year almost twice as long as our year, — 687 days to be exact—and seasons very much like ours but twice as long. Because Mars rotates, we can not only assign to it north and south poles, but we can also give it an equator according to the rules we use on the earth. Speaking in exact analogy to earthly matters with which we're familiar, we can divide the surface into arctic, temperate and tropical

The arctic zones on Mars, north and south, are characterized, even as our arctic regions are characterized, by caps of ice and snow over the ends of the axis of rotation. These ice caps at the appropriate season break up along the edges, grow smaller in size with the advance of summer, just as ours do. Along these seasonally-affected fringes of the ice caps are dark colored areas that show seasonal changes and are attributed to some form of vegetation growing under arctic conditions.

Planetary Deserts

The temperate zones have a reddishorange appearance and because of their extent govern the color of the planet as we see it. These zones are believed to be extensive deserts (huge dust storms have been observed blowing across them) which derive their color from the rusting of the surface materials, such as the iron rust you'll find on many a casual rock you pick up in a field or from a rock pile. Iron is one of the most plentiful elements throughout the universe and there's no reason to doubt that Mars has its share

The tropical zone is dark in color, a bit irregular as to the contour of its northern and southern boundaries. The Martian tropics show seasonal changes in color, which is due, it is thought, to some form of vegetation. They are chocolate color in winter, a bluish-green in summer, and in a transitional stage in spring and fall.

Mysterious Dark Lines

As for those markings of the surface which were the springboard for the life on Mars theory, across the desert areas, the temperate zones, runs a disputed network of fine dark lines, criss-crossing with a semblance of tiny, round, dark spots at the major intersections. In common with the changes in the tropical region and the seasons, these dark lines widen or narrow in a way suggestive of vegetation along the banks of streams. Of all the markings of the planet this network of dark lines connecting the ice caps with the tropical zone have been the

source of the greatest discussion. One camp believes they exist and are natural surface markings; a second camp maintains they are optical illusions and a third camp is sure they exist and are artificial, suggesting the existence of intelligent humans on Mars.

Percival Lowell, of the "artificial" camp, interpreted the markings as waterways, an irrigation project on Mars to convey the water of the melting ice caps across the deserts to the tropics. We'll see that water is scarce on Mars. These waterways, if so they be, would require a super-intelligent race to construct them. Some of the waterways are 3,000 miles long and present an engineering task inconceivable here on earth.

Life Essentials

But those creatures, if they exist, would be much different terrestrial beings. For us to exist on this earth. we must be supplied with three essentials; oxygen, water and a reasonable temperature. You might add food, but if we can exist, we know that food exists, even if we have to turn cannibalistic and eat each other - not necessarily a balanced diet. So in examining the possibilities of a human existence like ours on Mars we ask, does Mars have an atmosphere with a sufficient supply of oxygen? Does water exist on Mars? What's the temperature on Mars and how does it vary? Those are just the questions astronomers have asked themselves and have tried to answer by observing Mars when it was nicely placed in space, particularly at times when it approached the earth more closely than usual, this summer for example.

Martian Tropics Welcome

The results to date? Well, so far as temperature goes on Mars, we'd welcome the tropics there and likely shun the barren deserts of the temperate zones and their cooler—or rather, colder climate, for even in the tropics on Mars the temperature at noonday ranges from a minimum 30 degrees to a maximum of 80 degrees Fahrenheit. Soon after sundown the temperature drops abruptly and reaches 108 below zero by midnight.

You'll note that in contrast to the year-round uniform heat of our tropics, the tropical temperatures on Mars show a fifty degree range. This range is due to the fact that the distance of Mars from the sun varies more extremely than does the earth's, 28,000,000 miles of variation for Mars as against 3,000,000 for the earth. The Martian temperatures are generally lower than ours because Mars is further from the heat supply, the sun, than is the earth, averaging over 140,000,000 miles against the earth's 93,000,000. The daily range of temperature, from a maximum of 80 degrees above to a minimum of 108 below, arises because Mars hasn't much of an atmosphere. Applying the same technique to Mars enables us to photograph the atmospheric shell by using a blue filter and to photograph the surface and its detail, less the atmosphere, with a red filter. The difference in size of the two photographs is an indication of the depth of the atmosphere, measured as close to 60 miles in depth.

Lack of Oxygen

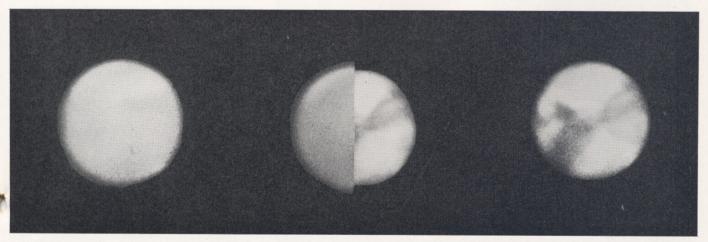
But we're not so much interested in the fact that Mars has an atmosphere as we are in whether it contains oxygen or not. To tell you how we detect the composition of an atmosphere which we cannot sample directly would be a difficult job. The results of this far-range sampling indicate less than one per cent of the earth's supply of oxygen is to be found in the Martian atmosphere. This lack of oxygen is rather disconcerting so far as our existing on Mars would be concerned. We need an artificial supply of oxygen 9,000 feet up in our own atmosphere, where there's more atmospheric oxygen available than Mars offers.

But if oxygen prospects look pretty bleak, the water prospects are but little better. The same technique used in the search for oxygen shows less than three per cent of the earth's atmospheric supply of water vapor exists in the Martian atmosphere. While those polar ice caps look promising, they're probably only a few inches thick and the entire water supply available on Mars would hardly fill Lake Huron. There are absolutely no signs of oceans or lakes. Were we trying to live on Mars, we'd have to travel a long way for a drink and then be given but a small daily ration.

Martian Life Unlikely

So draw your own conclusion about our ability to exist on Mars. The most serious obstacle is the lack of oxygen and the small supply of water is a close second. If you want to create an imaginative form of life which can exist under Martian conditions, you're welcome to do so, but it will function differently than your Uncle Bill and my Cousin Kate. And if you're expecting the astronomers to verify

(Continued on page 22)



Three photographs of Mars. (Left) through a blue filter, showing atmosphere; (Right) through a red filter, showing major surface details; (Centre) the images halved and juxtaposed. The difference in size is due to the atmosphere of Mars, but is exaggerated by the photographic process.



(Above) World Youth Speaks with Professor Carleton A. Wheeler. (Upper Right) Swedish choral group in WRUL Scandinavian Program. (Below) Norwegian Glee Club; (Lower Left) Staff members at the Transmitter working on emergency relief broadcasts during the 1938 New England hurricane. (Lower Right) Professor William Y. Elliott of Harvard University, Stanley C. Lary, and Dr. Loring B. Andrews of the WRUL staff, conducting an informal Round Table. (Middle Right) Dr. C. Davis Belcher, lecturer in Modern Radio with Hollis Baird, WRUL Chief Engineer.

(Photos courtesy of Look)











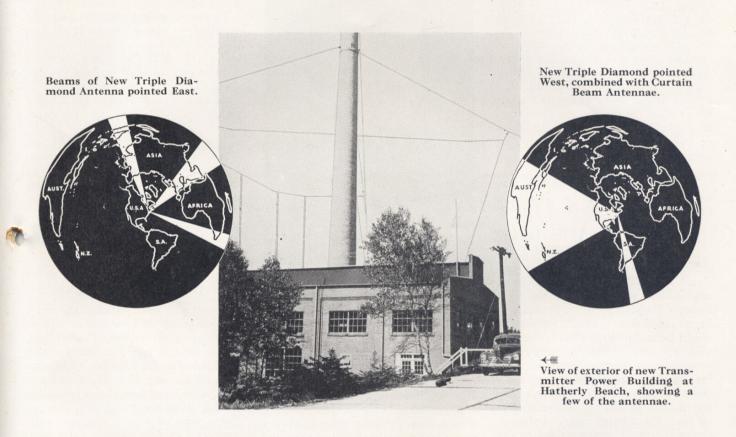
WRUL Transmitters

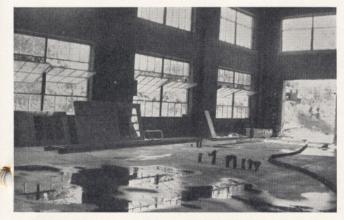
The story of the transmitters at Hatherly Beach, on south shore of Boston would be a long time in telling, were all the details of their construction to be enumerated. The figures involved in such an account would in themselves comprise a small multiplication table. The growth of the World Radio University made it apparent that the city location for the Boston transmitter would no longer meet the needs of WRUL, (formerly WIXAL).

An extensive testing period was begun previous to the actual selection of the present location. No construction was begun until it had been definitely ascertained that

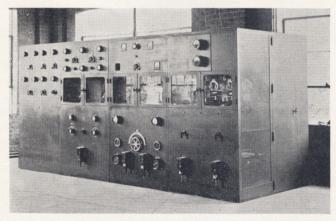
transmitters and antennae at Hatherly Beach would more effectively carry the shortwave programs of WRUL to the far corners of the globe. Reports from Europe, Africa, South America and far off New Guinea quickly substantiated this choice.

With remodeled and enlarged studios at the University Club, Boston and with the two improved and powerful transmitters at Hatherly Beach, the World Wide Broadcasting Foundation is this year making a new mark in the history of shortwave broadcasting.





Interior View of the Transmitter Power House at Hatherly Beach. Pouring the Concrete Floor to Receive the New Transmitting Equipment.



View of one of the 20,000 watt International Transmitters just installed at Hatherly Beach, to bind the World Wide listeners closer together in world fellowship.

Tristan and Isolde Literature's Greatest Lovers

by John C. Scammell

It was about Christmas time, when my daughter had come home from college for the holidays. We were talking college together, naturally enough, when you come to think of it, for she was a student at one college and I was a professor at another. So we were comparing notes. Some of our talk dealt with academic matters, such as literature, lecturing, taking notes, writing reports and all that sort of thing. Some of our talk dealt with college life outside the classroom. It might have been either literature or college life that brought up the question, but at all events, my daughter asked me,

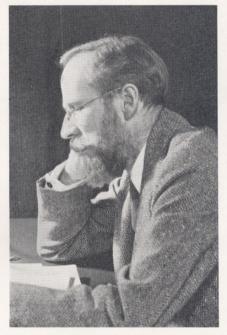
"Daddy, I mean, — Professor, who were the really greatest lovers in literature?"

The Academic Viewpoint

Now that was a rather large question. I should like to put it into an examination some day, and see what answers I would get from students of literature. But I don't suppose it would be really fair. That is the way with so many interesting and really important questions. They do not fit into academic scholarship; they don't quite belong in college, although they are so close to life. A college is shut off from life in many ways. It has to be, of course, if professors are to get enough time and opportunity to get beneath the surface of things. But all the same, it seems a pity that learning must shut so much of life outside its

It's much the same situation when I am in my study at home. I have to shut the door. The family are excluded, unless something of tremendous importance occurs. I must bury myself in my books and papers and do all that I can to forget that anything else really matters.

But how can a person who buries himself like that ever stay human? Well, it's quite a job, I'll admit. But fortunately my particular work compels me to read books that are very much alive. I may shut the door on



John C. Scammell

Professor of English and Journalism, College of Business Administration, Boston University; International Postmaster of WRUL, world traveler, lecturer and radio commentator.

my own family for a while. But when I do so, I am very likely to open the door for some other people. That is to say, I am probably going to open a book; not a textbook full of rules and dry-as-dust formulas, but a book that takes me into a world of living, suffering, struggling, genuine people.

Literature as Life

The greatest literature, from the beginning until now, shows us just such people; and it shows them to us as we might never see them for ourselves, even though we lived next door to them. Literature, in large measure, is life—life seen through unusual eyes, the eyes of people who see beneath the surface, who have the gift of understanding more than meets the eye, and who also have that other great gift, the gift of words,—words that open our eyes to what they see.

So the professor shut up in his study with books of this sort does get a chance to see more of life than if he spent all his time in the everyday world outside his study door.

However, we must get back to that question; — who *are* the really greatest lovers in the world of books?

Well, I should cast my vote for Tristan and Isolde or perhaps you call them Tristram and Iseult; one is German and the other French. Choose which you will, they are the same lovers.

There are a score or more of other famous lovers in the tales of Western Europe alone. They run all the way from Cinderella, the Sleeping Beauty, and Rapunzel to Paolo and Francesca, Romeo and Juliet, not to forget Dante and Beatrice. As for the love stories of modern times, well, that's another matter.

Lovers from Middle Ages

Many will contend that the most famous group of love stories is that which grew up in the Middle Ages, round the court of King Arthur and his Table Round; Lancelot and Guinevere, Enid and Geraint, Elaine the Fair, who loved Lancelot in vain and Merlin with his treacherous Vivien. These were all friends and acquaintances of Tristan's. Beside them were Aucassin and Nicolette and other folk of French lays, and the great Siegfried and Brunhilde of the Norse and Nibelungen myths.

Yet Tristan and Isolde seemed more important than the rest. For century after century poets turned to these two as their great preference. And if the poets have thought them outstanding, who are we to disagree?

In the olden days, the Breton, the English, the Scotch, the German and French, and even the Italian and Norse poets used the story. In more recent years, Wagner, Tennyson, Matthew Arnold and Swinburne, all produced works that rank with their finest. In this very twentieth century, the great French scholar, Bedier, and

the distinguished American poet, Edwin Arlington Robinson, have both produced major works on Tristan and Isolde.

The story has offered an extraordinary opportunity to study this strange happiness, exaltation in the midst of so much suffering. For there is the mystery; — that although they well knew that they loved in vain, that fate was certain to keep them apart, even so, they never desired to let their love die, and to make what they could of life without each other. In that enchantment of love, there was a gain that no pain could destroy.

Wagner's Lovers

Not only in words but in music as well these lovers and their tragic story have taken first place in more recent years. Wagner's *Tristan und Isolde* is presented over and over again by the leading opera companies all over the world. That music today reaches into the hearts of men; it throws a golden splendor over that romance

with all its tenderness and sadness; it reveals grandeur and haunting love-

That music draws people away into another world, just as lovers are drawn away and enchanted and captivated. Under the spell of Wagner's tones we can believe that Tristan and Isolde were helpless under the spell of a love potion.

Lovers live in another world, not in the everyday, workaday world that you and I live in. What else matters, except their love? Can that glamour endure; can that splendor last? If only it could; if only life did not have its thousand and one duties and trivialities. If only faces did not have to be washed, and food eaten, work done, mistakes made and obstacles overcome. If only that world of chivalry and romance, that perfect dream, might become actually and utterly real!

There is the difficulty of course. Ordinary lovers must yield to the necessities of living earthly, workaday lives. Love must give way to the business of living; it must be saved

for those rare moments of freedom from needs and duties.

But in the books — that is different. In the books, if only the writer is great enough and if only the story runs true to our deepest longings, we can believe in the impossible; we can see, created before our mind's eyes, that loveliness and grandeur.

Literature and Life

But even in the books, if the story is to be really grand, sorrow and tragedy will enter in. To say that the lovers loved and lived happily ever after, means little or nothing. Life means conflict and struggle, against fate. Even our ideal love story will show misfortune and unhappiness striving to conquer and defeat love.

But truly great love can not be defeated. That is what the story books say; that is what all lovers believe. In fact, that is the message of every great religion. There is some ground for asserting that life is intended to show us that love and love alone can make life worth living.

TRISTAN AND ISOLDE – A SYNOPSIS

Although the famous story of Tristan and Isolde is universally known, the original version has become so altered through changes in music and ballad, that few today are aware of the exact nature of the original plot. Tristan was the hero of a medieval romance, originally not connected with the Arthurian cycle, but early incorporated into it as a knight of the Round Table. Tristan went to Ireland, sent by his uncle King Mark of Cornwall, to fetch the King's bride, Isolde the Beautiful. On the return voyage Tristan and Isolde partook of a powerful love potion, and the two fell deeply in love.

At this point the original plot is lost in a haze of speculation. According to Tennyson, Tristan was stabbed by King Mark, who surprised him with Isolde. According to Matthew Arnold, Tristan fled to Brittany where he married another Isolde, Isolde of the White Hand. In the story as told by Wagner — and this is the version best known today — the lovers were discovered by the King and Tristan allowed himself to be wounded by Mark's squire. Then in Mark's castle, he awaited Isolde's ship. When she arrived, Isolde discovered Tristan dying of his wounds.

There is an agonizing death scene in which the gloom and monotony of much adoration with little action is relieved only by the splendor of Wagner's music. After the death of Tristan, Isolde, stricken with grief falls dead over her lover's body. The story of Tristan and Isolde is at best a simple one, but its repeated use and numerous adaptations in literature and music have extended its life much longer than would be expected. So tedious is the actual Tristan plot in Wagner's opera, that in many cases the entire first act is omitted, in order to heighten the effect of the final love scene; yet this scene alone, enriched by some of the world's greatest voices, has become well-known everywhere.

SUNDAY RADIO BOOKSHELF

John Scammell of Boston University has this year prepared a program of literary readings and comment that should fill the leisure hours of book lovers on many a Sunday afternoon. Splendors of Literature has been designed to meet the approval of listeners who are anxious to learn more of the background of the literary classics, familiar to all. By obtaining the text of the material to be discussed from any public library, Professor Scammell's followers can enjoy a Sunday afternoon, reading some of the world's greatest literature; Professor Scammell's intimate chat will then follow as a literary dessert.

Splendors of Literature will run through the entire year and will cover both the modern and early American period, not to mention special historical material dealing with biblical literature. In November Cooper, Poe, Irving and Emerson form the subjects of Professor Scammell's lectures, and in December the broadcast will include interesting notes on Homer's Odyssey and the Electra of Euripides.

Later in the winter Professor Scammell turns to more modern literature for his lecture material. He will discuss in his usual friendly manner certain aspects of such popular books as *The Bridge of San Luis Rey* and *The Education of Henry Adams*. The well known modern American classic, *The Green Pastures* will form the topic of one lecture in this series, while literary information from current magazines forms the basis of another.

Altogether, Professor Scammell has arranged a program of wide interest, embracing a variety of literary fields. His long connection with WRUL and his position as International Postmaster for the World Radio University, make his weekly literary talks a source of information and relaxation to shortwave listeners the world over.

Church Services

In harmony with the general thought that during the days of crisis abroad, more attention should be paid to peace endeavors than war headlines, we bring this month a program of Sunday church services. In time of war prepare for peace; the World Wide Broadcasting Foundation will this year again emphasize the need for greater Christian harmony by presenting regular devotional periods of several denominations.

Beginning October 1st with the Chimes and Church Service from The First Church of Christ, Scientist, in Boston, we also present on designated Sundays, services from Trinity Church (Episcopalian) and from Old South Church (Congregational). On October 29th listeners may attend services by radio at Memorial Church, Harvard University.

In addition to these programs, the Sunday Devotional Period affords a special opportunity to hear talks and music of a religious nature from several Boston churches. On the air at 5.00 P.M. Sundays.

Splendors of Literature

Do you ever find yourself on a Sunday afternoon firmly entrenched in the family's easiest chair, buried deep in one of those old stories that once thrilled you during college days? We've arranged things so that this month you won't even have to open the old library bookcase to renew the literary friendships, that have become dusty during the passing years. Professor Scammell, one of WIXAL's oldest friends, has arranged his regular Sunday broadcast to include personal discussions about Scott's Lady of the Lake and Ivanhoe not to forget Rostand's famous Cyrano de Bergerac.

It's a long time since we found a spare moment to thumb through the romantic pages of Scott. As for Rostand, the ardors of his long-nosed Cyrano make us just a little bit wistful; you see, we've never forgotten the beauty of the final scene, with the brown autumn leaves gently falling in the convent garden. Well, it will all come to life again on Sundays at 5.30 P.M. on 11.73 and 6.04 Mc.

October 1, 8, 15, 22, 29

E.S.T. Dial 11.79 Mc (25.4 m) or 15.13 Mc (19.8 m)

10.00 a.m. Morning Service from Boston Churches.

October 1 — Chimes and morning service, First Church of Christ, Scientist, Boston.

October 8 — Trinity Church (Episcopalian).

October 15 — Old South Church (Congregational). October 22 — Old South Church (Congregational).

October 29 — Memorial Church. Harvard University (Non-Sectarian).

Dial 11.73 Mc (25.6 m) or 6.04 Mc (49.6 m)

2.00 p.m. International Group Program.

October 15 — Albanian-American Group. October 22 — Cosmopolitan Student Club. October 29 — Armenian-American Group.

2.30 p.m. Stringed Music.

2.45 p.m. Pathways to Peace.

3.00 p.m. Inaugural Program. Symphonic Hour.

October 8 — Brahms' No. 1 in C Minor (recorded).

October 15 — New York Philharmonic Orchestra (Courtesy of the Columbia Broadcasting System).

4.00 p.m. Greek Goodwill Program. (In Greek and English.) Conducted by Nicholas Cockinos.

4.30 p.m. Join Us in Singing Hymns.

5.00 p.m. Devotional Period.

October 1 — Reverend Manley F. Allbright, Allston Congregational Church.

October 8 — Reverend Leslie T. Pennington, First Parish in Cambridge

(Unitarian).

October 15 — Malcolm W. Bayley, auspices of The First Church of Christ, Scientist, Boston.

October 22 — Dr. William E. Gardner, Trinity Church, Boston (Episcopalian).

October 29 — The Oxford Group.

5.30 p.m. Splendors of Literature. Professor John C. Scammell, Boston University.

October 8 — The Romantic Novel — "Ivanhoe".

October 8 — The Romantic Novel — "The Lady of the Lake".

October 15 — The Romantic Novel — Lockhart's "Life of Scott".

October 22 — Rostand's "Cyrano de Bergerac".

October 29 — The Philosophic Vistas in Romanticism — Rousseau, the Enthusiast; Voltaire, the Critic; Goethe, the Romantic Classicist.

6.00 p.m. Suite for Orchestra.

6.15 p.m. The Quakers in World Service. (Beginning October 15.)

6.45 p.m. Organ Music.

7.00 p.m. October 1st, only. Chimes and evening service, First Church of Christ, Scientist Boston

Modern Radio Study Books



Dr. C. Davis Belcher

The Modern Radio course under Dr. C. Davis Belcher has long been one of the most popular instructive features of WRUL. To enable Dr. Belcher's students, who are regular followers of the lectures, to study the radio material with greater care, the World Radio University has prepared a series of books complete with diagrams and illustrations; this material is offered at cost to any interested listener.

The Modern Radio instruction course is now divided into five sections which are given through-

(Continued on next page)

October 2, 9, 16, 23, 30

E.S.T.

Dial 15.25 Mc (19.6 m) or 21.46 Mc (14.0 m)

10.00 a.m. Special Test Program for European Listeners. (Courtesy of the Mutual Broadcasting System.)

10.15 a.m. Poetry and Organ Music.

10.30 a.m. Melody Strings.

10.45 a.m. John Metcalf's Choir Loft.

11.00 a.m. American Cowboy Band.

Dial 11.79 Mc (25.4 m) or 15.13 Mc (19.8 m)

3.00 p.m. Musical Requests.

World News. Based on dispatches appearing in The Christian Science Monitor. 3.30 p.m.

World News. (Repeated in Basic English.) 3.45 p.m.

The World in Review, a News Hour for European Listeners. (In German, French, 4.00 p.m.

Italian and English.)

NOTE: On October 2nd, only, Conference on Distribution, A National Forum for Problems of Distribution.

Schedule of broadcasts:

9.45 a.m. Important Trends Affecting Distribution.

1.00 p.m. Retail Trade Policies and Recovery.

2.15 p.m. Practical Applications of Science and Invention.

Dial 6.04 Mc (49.6 m) or 11.73 Mc (25.6 m)

October 2 — Basic English, a New World Secondary Language. 5.30 p.m.

October 9 — Round Table on American Public Policy. Professor William Y. Elliott, Harvard University, Chairman.

October 16 — Basic English.

October 23 — Round Table on American Public Policy.

October 30 — Basic English.

6.00 p.m. World News. Based on dispatches appearing in The Christian Science Monitor.

6.30 p.m. Music for the Dinner Hour.

Modern Radio Course: Elements of Television. Dr. C. Davis Belcher. 7.00 p.m.

October 2 — Scanning and Synchronization.

October 9 — Ultra High Frequencies.

October 16 — Television Transmitters.

October 23 — Television Receivers.

October 30 — Television Antennas.

Dial 11.73 Mc (25.6 m) or 15.13 Mc (19.8 m)

8.00 p.m. Program for Latin American Listeners. (In Spanish and English.)

8.15 p.m. Practical Lessons in English. Text by Guillermo Rivera.

9.00 p.m. Commentary on world events (In Spanish).

9.15 p.m. Symphonic Music.

10.00 p.m. Modern Radio Course: Elements of Television. Dr. C. Davis Belcher.

(See program for 7.00 p.m. for details.)

11.00 p.m. World News. Based on dispatches appearing in The Christian Science Monitor.

out the year; one textbook is supplied for each section, progressing from elementary to advanced subjects. The prices vary depending upon the number ordered.

One Booklet													. 9	1.00	
Two Booklets															
Three Booklets.														2.75	
Four Booklets														3.75	
Five Booklets														4.50	

With enrollments for the full course a convenient and attractive binder is supplied at no extra charge. Enrollments should be addressed to the World Wide Broadcasting Foundation, University Club, Boston, Mass. Complete information regarding the Modern Radio Course, a list of subjects and yearly schedule will be supplied on request.



Pin Pin T'an. M.A.

Basic English

Something new in languages makes its appearance on Mondays over WRUL.—A World Radio University. From far off Peiping, China, we find Miss Pin Pin T'an for a new series of lectures on Basic English.

Originated by C. K. Ogden of Cambridge, England, Basic English is meeting increased popularity with students of international affairs. With its simplified vocabulary of 850 words, Basic English serves as an international language. China, Burma and Russia have already adopted Basic English as a first step in teaching true English, for the simplicity of its construction makes the language easily understood.

Miss T'an, formerly of the Orthological Institute of Peiping, will present news in Basic English as well as her special Monday talks.

Modern Radio Course

Old friends of the World Radio University have long been familiar with the Modern Radio Course, which, during October includes special lectures on Television. Dr. C. Davis Belcher, long popular radio professor of the air, is broadcasting again more of that instructive material so helpful to students of the science of radio mechanics. You'll enjoy the talks this year; we can guarantee a season of lectures complete with details on the latest developments in the field.

As a special help to all who have been following Dr. Belcher's course in the past, we're leaving no chances for tardy students in the radio classroom. Each weekly lecture will be given three different times on three frequencies. This allows an opportunity for checking obscure points in the talks and for listening at convenient hours. Program details may be found in the schedule.

For all students of radio science, the fall season offers an exceptional opportunity to enroll in Dr. Belcher's radio classroom.

Boston Conference on Distribution

Business executives will take particular interest in this yearly feature of the World Wide Broadcasting Foundation: this season October second and third bring both the morning and afternoon sessions of the Boston conference to the WRUL audience. That covers a lot of ground; it means that two full days will be devoted to this very important business forum.

All of the numerous addresses will have their particular points of interest; thirty-five leading authorities make up this national conclave which is devoted entirely to problems of distribution. The Business Administration departments of Harvard University, Boston University and the Massachusetts Institute of Technology together with the Boston Chamber of Commerce aid in sponsoring the conference; the list of speakers includes such well known names as Dr. O. M. W. Sprague of Harvard and Charles F. Hughes of the New York Times.

The first morning session of the forum deals with important trends in distribution. In the afternoon the discussion turns to the practical applications of science and invention to distribution. On the second day of the session, Regulation of Business Practices and Distribution Costs offers a topic of interest to all business executives. Both morning and afternoon sessions may be heard on 15.13 and 11.79 Mc.

Scandinavian Goodwill Program

Conducted regularly in the many Scandinavian languages (Swedish, Norwegian, Danish and Finnish), the WRUL Scandinavian program last year made its mark as one of the World Radio University's most popular Tuesday features. Peter Reinsholm, the director of the broadcasts, is a radio personality, whom you will enjoy hearing fully as much as the many outstanding educators and musicians he has enlisted for his program.

This popular radio period is presented for the benefit of Scandinavian listeners everywhere, both in the United States and abroad. Some of the more outstanding highlights in the fall series will include talks and folk songs by Tikila, the well known Finnish artist.

October 3, 10, 17, 24, 31

Dial 15.25 Mc (19.6 m) or 21.46 Mc (14.0 m) E.S.T.

Special Test Program for European Listeners. (Courtesy of the Mutual Broad-10.00 a.m. casting System.)

10.15 a.m. Paul Allison, Poems, with Arthur Chandler, Jr., at organ.

Melody Strings. 10.30 a.m.

John Metcalf's Choir Loft. 10.45 a.m. 11.45 a.m. Erskine Butterfield, Pianist.

Dial 11.79 Mc (25.4 m) or 15.13 Mc (19.8 m)

3.00 p.m. Program Bulletins.

3.30 p.m. World News.

3.45 p.m. World News (In Basic English).

4.00 p.m. Scandinavian Goodwill Program.

The Listeners' Post Box, conducted by Professor John C. Scammell, International Postmaster for the World Radio University. 4.30 p.m.

NOTE: On October 3rd, only, Conference on Distribution, A National Forum

for Problems of Distribution. Schedule of broadcasts:

9.15 a.m. Regulation of Business Practices.

1.00 p.m. Good Business Neighbors.

2.15 p.m. Distributions Costs and General Marketing Problems.

Dial 6.04 Mc (49.6 m) or 11.73 Mc (25.6 m)

5.30 p.m. Tuesday Interviews with Interesting People.

6.00 p.m. World News.

6.30 p.m. Music for the Dinner Hour.

7.00 p.m. Czechoslovakian Goodwill Program.

7.30 p.m. Harvard University Series.

Dial 11.73 Mc (25.6 m) or 15.13 Mc (19.8 m)

8.00 p.m. Program for Latin American Listeners. (In Spanish and English.)

8.30 p.m. Symphony Orchestra under the direction of Alfred Wallenstein. Nadia Reisenberg, soloist. (Mutual Broadcasting System.)

9.00 p.m. Commentary on Current Events (In Spanish).

Elements of Aviation. Captain Hilding Carlson, Boston University and The New England Aircraft School. 10.00 p.m.

A series of introductory lectures, with guest speakers.

10.45 p.m. Music for Strings.

11.00 p.m. World News.



Peter Reinsholm (Left) with his guests, Mr. and Mrs. Sven Knudsen of Denmark, taking part in the Scandinavian Program.

October 4, 11, 18, 25

E.S.T. Dial 15.25 Mc (19.6 m) or 21.46 Mc (14.0 m)

Special Test Program for European Listeners. (Courtesy of the Mutual Broad-10.00 a.m. casting System)

10.15 a.m. Poetry and Organ Music.

10.30 a.m. Melody Strings.

10.45 a.m. John Metcalf's Choir Loft.

Dial 11.79 Mc (25.4 m) or 15.13 Mc (19.8 m)

1.00 p.m. October 4th, only, World Series Baseball Game. (Courtesy of the Mutual

Broadcasting System.)

3.00 p.m. Band Concert.

3.30 p.m.

World News. 4.00 p.m. French Goodwill Program.

4.30 p.m. Pathways to Peace.

Dial 6.04 Mc (49.6 m) or 11.73 Mc (25.6 m)

5.30 p.m. Reading Aloud.

6.00 p.m. World News.

6.30 p.m. Music for the Dinner Hour.

7.00 p.m. Symphonic Hour.

October 4 — Tschaikowsky's No. 6 in B Minor.

October 11 — Wagner's Tristan and Isolde, a Symphonic Synthesis.

October 18 — Sibelius' No. 5 in E flat Major. October 25 — Beethoven's No. 4 in B flat.

Dial 11.73 Mc (25.6 m) or 15.13 Mc (19.8 m)

8.00 p.m. Program for Latin American Listeners. (In Spanish and English.)

8.00 p.m. Special Program.

9.00 p.m. Commentary on current events. (In Spanish.)

9.30 p.m. Symphony Orchestra (Courtesy of the Mutual Broadcasting

8.15 p.m. October 11th only, Academy of Arts and Sciences. Meeting. Presentation of Rumford Medal to Professor George R. Harrison of M. I. T.

10.00 p.m. Understanding Music. Dr. Donald J. Grout, Harvard University.

October 4 — The Middle Ages: The Music of the People; Folksong.

October 11 — The Middle Ages: The Music of the Church; Plainsong.

October 18 — Songs and Dances of the Middle Ages.

October 25 — Music as a Science: "Ars Antiqua" of the 13th Century.

10.30 p.m. Looking Starwards. Dr. Loring B. Andrews.

October 4 — Jupiter, Giant Planet.

October 11 — Saturn and its Ring.

October 18 - Mercury and Venus.

October 25 — The Moon.

11.00 p.m. World News.



Francois Briere, French Consul (Left) speaking with the French critic, Mellherbe, on the WRUL French Goodwill Program.

French Goodwill Program

It has long been a policy of the World Wide Broadcasting Foundation to direct special goodwill programs to Europe, in an effort to promote a greater degree of international understanding. The French Goodwill Program under Professor Andre Morize of Harvard University, is just such an endeavor. It is a sincere attempt to promote the exchange of cultural and instructive information between the United States and France.

Professor Morize and M. François Briere, French consul will present programs of interest to all French speaking listeners. This is a Wednesday feature.

* * *

Understanding Music

October always finds the interests of the entire family shifting from vacation days at the shore to things academic. Autumn always means new books to be read, concerts to be attended - in fact, the whole galaxy of seasonal activities that become popular during the colder months. With the advent of fall symphony season, all music lovers are anxious to find new means of gaining more information about good music. WRUL listeners won't have to look far!

Point and counter point will take on a new meaning with Dr. Donald J. Grout on the shortwave radio podium. Understanding Music offers far more than the average music appreciation lecture, for Dr. Grout, of Harvard University's music department, feels his audience is anxious to do more than merely "hear" good music over the air. His talks are designed to aid musicians and non-musicians alike in increasing their musical background, and in learning just how good music really comes into being. He is on the air Wednesdays at 10.00 P.M. on 11.73 and 26.5 Mc. A repetition of the weekly talk will be given on Thursdays at 5.30 P.M. on 11.73 and 6.04 Mc.

Democracy and WRUL

At the present time the world is faced with the problem of preserving its democratic institutions, in the face of universal unrest. The World Radio University, itself a democratic institution, is today endeavoring to preserve democratic ideals through the channel of shortwave broadcasting.



Captain Hilding Carlson

Aviation Course

All of us are not destined to become pilots; some of us rarely have the opportunity to fly as passengers even in the commercial transports. But Aviation as taught over the shortwave by Captain Hilding Carlson presents vital information concerning modern aircraft.

In the first place, Capt. Carlson in the first section of his course, brings us the elements of aviation; he shows us just what the airplane is, its various constructional characteristics and the various types of aircraft. Why does an airplane fly? Well, that's a question that we thought was left to a college engineering class, but Mr. Carlson answers it simply and clearly in his beginning lectures. He shows us that a plane weighing fifty tons can easily obtain the lift required to maintain flight. You see it's all done through airfoils, - but that's getting ahead of out story.

Hilding Carlson can tell it over the shortwave a lot better than we can here. It's a regular Tuesday program over WRUL.

* * * World Youth Speaks

What are young people doing today for world peace? In this program for youth and by youth the world around, Professor Carleton A. Wheeler of Tufts College presents a living example of the efforts of youth to promote a last-

ing peace.

On a regular Thursday program, Professor Wheeler brings a representative group of students before the radio listeners of WRUL. In this friendly program, students have the opportunity of presenting their own views on a variety of subjects. With the help of outstanding speakers from educational journalistic, and musical fields these young people offer material of international interest. Often the program is presented in several languages, although English forms the basis for the broadcast.

October 5, 12, 19, 26

E.S.T. Dial 15.25 Mc (19.6 m) or 21.46 Mc (14.0 m)

10.00 a.m. Special Test Program for European Listeners, (Courtesy of the Mutual Broadcasting System.)

10.15 a.m. Paul Allison, Poetry. 10.30 a.m. Classical Music. 10.45 a.m. Choir Loft.

Dial 11.79 Mc (25.4 m) or 15.13 Mc (19.8 m)

1.00 p.m. October 5th, only, World Series Baseball Game. (Courtesy of the Mutual Broadcasting System.) Note: Baseball game broadcasts will continue until end of World Series, with the exception of October 7.

3.00 p.m. Chamber Music.

3.30 p.m. World News.

3.45 p.m. World News (repeated in Basic English).

World Youth Speaks. Conducted by Professor Carleton A. Wheeler, Tufts College. A program for youth the world around. 4.00 p.m.

October 5 — Review and Preview.

October 12 — The Effect of War on World Youth.

October 18 — Venezuela Speaks. October 26 — "So This is Tasmania!"

Elements of Aviation. Captain Hilding Carlson, Boston University and The New England Aircraft School. (Transcribed: Originally heard Tuesdays at 4.30 p.m. 10.00 p.m.)

Dial 6.04 Mc (49.6 m) or 11.73 Mc (25.6 m)

Understanding Music. Dr. Donald J. Grout, Harvard University. (Transcribed: 5.30 p.m. Originally heard Wednesdays at 10.00 p.m.)

World News. 6.00 p.m.

6.30 p.m. Music for the Dinner Hour.

Visiting American Colleges. Radcliffe, M. I. T., Princeton, Mt. Holyoke. 7.00 p.m.

7.30 p.m. Favorite Light Operas.

Dial 11.73 Mc (25.6 m) or 15.13 Mc (19.8 m)

8.00 p.m. Program for Latin American Listeners. (In Spanish and English.)

8.15 p.m. Talks in Spanish by educators.

9.00 p.m. Commentary on current events (In Spanish).

9.30 p.m. Latin American Music.

Splendors of Literature. Professor John C. Scammell, Boston University. (Transcribed: Originally heard at 5.30 p.m. Sundays.) 10.00 p.m.

October 12 and 26. Round Table on American Public Policy. Professor 10.30 p.m. William Y. Elliott, Harvard University, Chairman. (Transcribed: Originally heard on Mondays at 5.30 p.m.)

11.00 p.m. World News.



Professor Carleton A. Wheeler with a group of students on his program "World Youth Speaks"

October 6, 13, 20, 27

E.S.T. Dial 15.25 Mc (19.6 m) or 21.46 Mc (14.0 m)

10.00 a.m. Special Test Program for European Listeners. (Courtesy of the Mutual Broadcasting System.)

10.15 a.m. Poetry and Organ Music.10.45 a.m. John Metcalf's Choir Loft.

11.45 a.m. Radio Garden Club.

Dial 11.79 Mc (25.4 m) or 15.13 Mc (19.8 m)

3.00 p.m. The World Waltzes.

3.30 p.m. World News.

3.45 p.m. World News (Repeated in Basic English).

4.00 p.m. Modern Radio: Elements of Television. Dr. C. Davis Belcher. (Transcribed: Originally heard at 10.00 p.m. on Mondays.)

Dial 6.04 Mc (49.6 m) or 11.73 Mc (25.6 m)

5.30 p.m. World of Science. Looking Starwards. Dr. Loring B. Andrews. (Transcribed: Originally heard at 10.30 p.m. on Wednesdays.)

6.00 p.m. World News.

6.30 p.m. Music for the Dinner Hour.

7.00 p.m. Pronounce It, Please. Pronunciation Tips on names and words commonly heard

over the radio.

7.30 p.m. Listeners' Mailbag. Interesting letters from near and far.

Dial 11.73 Mc (25.6 m) or 15.13 Mc (19.8 m)

8.00 p.m. Program for Latin American Listeners. (In Spanish and English.)

8.00 p.m. Latin-American Night.

9.00 p.m. Commentary on current events. (In Spanish.)

9.30 p.m. Classical Music.

10.00 p.m. College Post Box. Intercollegiate correspondence, conducted by Tom Lyons,

corresponding secretary.

10.30 p.m. Pathways to Peace.

10.45 p.m. Concert for Violin and Piano.

11.00 p.m. World News.

Godoy and Peace

Sr. Jose A. Godoy, President of the Boston Spanish Club and Chairman of the WRUL Latin American programs, has devoted most of his life to the spreading of international good will through the interchange of cultural ideas between North and South America. His present work with WRUL has resulted in one of the most successful and popular good will programs heard over the station. Peace, according to Sr. Godoy, can be achieved permanently only through awakening the world to a greater appreciation and understanding of music and the arts.



Jose A. Godoy

Chairman Latin American programs

Photo courtesy of "Look"

Pronounce It, Please

Have you been suffering lately from the sinking feeling that invariably comes from mispronouncing words? As radio announcers, we are, of course, horribly aware of our own occasional lapsi linguae, — which, to express the problem more bluntly, result from tripping over the "z's" and "w's" of Polish place names. There are, however, words that everybody seems to turn entirely inside-out. Even such well-known proper names as Albequerque and San Jose sometimes slip off our tongues in the most perplexing fashion. You'll hear a lot of these in Pronounce It, Please.

College Post Box

Here's something brand-new in the curriculum of the World Radio University. Tom Lyons, formerly of the Cosmopolitan Student Club, presents his own program of student opinion in letters from college graduates all over the world. What are the sentiments of students abroad toward present international affairs? We're as curious as you will be to hear these letters and opinions — which cover everything from cabbages to kings — on Fridays at 10 P.M. over 11.73 and 26.5 Mc.

Football from Yale Bowl Every Saturday

No college year would be complete without a football schedule and in this the World Radio University is no exception. Personally, where this popular autumn sport is concerned, we like to forget our radios — yes, and a lot of other things as well — and mingle with the crowd before rushing the stadium to root for dear old Alma Mater. We're forced to admit, however, that this isn't always convenient. Alma Mater, conservative to the last, remains "fixed" in her ways, - but her sons wander far afield. It's a little awkward, sometimes treking 4,000 miles or more to a Saturday scrimmage line so we listen in on the shortwave. It's more comfortable somehow, especially in rainy weather.

If you like football join us Saturday. Don your slippers, pack up a lunch, and settle down beside the loudspeaker; we promise not to keep you waiting at Yale Bowl. 2.30 P.M.—11.79 and 15.13 Mc. each Saturday.

October 7, 14, 21, 28

E.S.T. Dial 11.79 Mc (25.4 m) or 15.13 Mc (19.8 m)

1.45 p.m. Football Games, direct from the Yale Bowl, New Haven, Connecticut.

Courtesy of Yankee Network.

October 7 — Yale versus Columbia.

October 14 — Yale versus Pennsylvania.

October 21 — Yale versus Army.

October 28 — Yale versus Michigan, at Ann Arbor, Michigan.

5.00 p.m. Variety Hour.

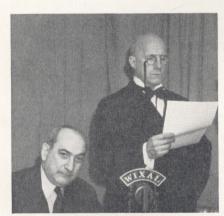
Dial 6.04 Mc (49.6 m) or 11.73 Mc (25.6 m)

6.00 p.m. World News.

6.30 p.m. Music for the Dinner Hour.

7.00 p.m. Czechoslovakian Goodwill Program.

Latin American Programs



Jose Godoy and Gustavo Aragon

Once again the friendly voice of the shortwave has strengthened the spirit of goodwill between North and South America. This year the World Wide Broadcasting Foundation again directs special broadcasts to South America. The growth in popularity of these programs has been so great that this season we are looking forward with considerable enthusiasm to Sr. Jose A. Godoy and his very capable assistant, Sr. Gustavo Aragon.

Sr. Godoy, president of the Boston Spanish Club, is already arranging his schedules to meet with the approval of our listeners far to the south. Special cultural material of particular interest to Latin American listeners, as well as symphonic programs and travel features are tucked away in Sr. Godoy's portfolio. When will he bring them out? 8.00 to 10.00 P.M. Mon-

day through Friday marks the regular period for the Latin American broadcast — on the air as a daily feature. But that's only the beginning; this year the program will include entertaining and cultural features of interest, not only to South America, but also to the entire international radio audience.

Just by way of introduction we might say that Sr. Aragon, who will be a very active figure on the programs this year, was formerly director of the Institute of Higher Education in Cuba, an instructor of logic, and has held an important post in the Berlitz Language School. Present plans for his work with Sr. Godoy include a radio travelogue complete with unusual personal experiences in Argentina and Brazil. He will also aid Sr. Godoy in the presentation of a series of Spanish playlets.

In general the purpose of the Latin American Programs has been to bind with closer cultural ties. This purpose will again be emphasized this year, but at the same time the program will be enriched by valuable material of current interest. A special news program in Spanish, new biographies and sketches! We could talk about it endlessly — but we'll leave that to Sr. Godoy. His bulging portfolio has always aroused our curiosity — so personally, we're looking ahead for those regular daily features with considerable enthusiasm.

Our Neighbor Mars

(Continued from page II)

your imaginings by seeing evidence of it, just consider that a telescope can't reveal anything on Mars less than 25 miles in extent.

Recent Observations

Thus far this summer's work by astronomers, particularly by Dr. E. C. Slipher, authority on the planets, normally stationed at the Lowell Observatory in Flagstaff, Arizona, but observing Mars this summer from the southern hemisphere observatory of the University of Michigan, the Lamond-Hussey Observatory at Bloemfontein, South Africa, has revealed nothing startling. It snowed lightly in the northern hemisphere of Mars sometime on July 23; the fall melted within two days. This weather observation was made by Dr. Slipher who has also seen some mildly striking changes this summer in the contours of the dark patches that are attributed to vegetation. He says these changes are evidence of new growths.

Let's go along with Dr. Slipher at least part way; let's agree on there being some sort of vegetation on Mars; the planet isn't static in appearance, a dead world like the moon. But we can't say with surety that it's vegetation like ours. In fact there's evidence which says the vegetation can't be like ours on the earth and a lack of evidence which says it is.

That's the story of Mars except for two things; it has two moons where the earth has but one, and — good news to those troubled by overweight — if you could travel to Mars your earth weight would be cut in half!



Loring Andrews, Ph. D.

Chairman, WRUL Program Planning
Committee and former Assistant Director,
Harvard Observatory.



The International Post Office

WORLD WIDE BROADCASTING FOUNDATION UNIVERSITY CLUB • BOSTON, Mass. • U. S. A.

Dear Listening Friends:

October, 1939.

Day after day, letters from our audience give us the most important news that we can receive. These letters tell us what you think of our programs. We must study your interests, your pleasures, and your desires; we must work steadily and intelligently to meet them.

Consequently we are constantly and continually thinking about you, individually as well as collectively. And every letter that tells us what you like, and in just what degree you like it, helps us to build our programs nearer and nearer to your satisfaction

You see, we have no other interests to serve but yours. So the better we understand your views,

the more we know about your world, your place in that world, the scene in which you live, the thoughts that come to you from day to day, the topics your family likes to talk about, — the more intimately we know you and your environment, the better our programs can be made.

We are quoting a few letters, recently found in our post box which you may have already heard me answer on our Tuesday International Post Box

Hour.

Sincerely,

John Scalmwell

Your Postmaster

Naples, Italy

Last night's "reading the mail" portion of your broadcast served as an impetus for me to write. Your station is received with exceptional power and clearness until I turn it off following your news broadcast at about 12.20 A.M.WIXAL (WRUL) booms through with a volume equal to our own local stations.

I'm mighty glad to be able to hear the lovely symphonic music and the news. First I get the English version of the Italian news at 8:36 P.M. This is followed by the London notices and later by Germany with its English translation. Then capping the climax is the *Monitor* (from Boston).

Thank you many, many times for the pleasure you are giving me.

Theodore G. Kress

Mediterranean

Have just completed tests on broadcasts of football games back in the States and am pleased to report, of all the broadcasts this date WiXAL (WRUL) was by far the finest. Naples is one of the poorest reception spots in Europe; the active volcano and two small islands directly in line with the States greatly harass short waves. Also we were tied up to the municipal maritime pier and approximately thirty-five ships were in the harbor, so WiXAL'S (WRUL's) reception here was more than appreciated.

Raymond J. Shea, CRM. U. S. Navy

Puerto Rico

Just a word to thank you for the shortwave broadcasts. You can't imagine the pleasure those broadcasts afford us here in Puerto Rico. Our work is difficult — at times discouraging, and a foreign language, the heat and general lack of diversion do not lighten the conditions.

There are many of us here indebted to you. Sincerely we say that all embracing word, "thanks", for many pleasant hours. John P. Whooley

Melbourne, Australia

I might state what a pleasure it is to listen to an enlightening and educational program, without constantly recurring commercial announcements and may I congratulate all connected with the station for this policy.

It is my earnest desire to see your country and study your broadcasting methods. With this in view I am contemplating a trip next year, when I hope to see your station from which I have heard so many interesting programs.

This morning I heard you and as conditions were so very favorable I was prompted to write. It is no exaggeration to say that were I a shorthand writer I could have copied every word of the approximate hour period I was listening. Again many thanks for your fine programs, which are heard regularly by us.

Donald Gilder

Sheerness, Kent, England

In response to your request "over the air", I have great pleasure in letting you know that we are deriving great pleasure here from your broadcasts, both seriously on affairs in Europe and humourously on minor happenings in the United States.

Over here, we are rather too close to get a really good view of the European situation, and indeed, many of the views and comparisons which you give us are not obtainable at all on this side, and consequently the American point of view is most refreshing and instructive.

H. V. Stallon

Norwich, England

I thought you might be interested to know that I have received your programs as well as British and other European stations. This is remarkable as I have only been using an indoor aerial!

In England most of the radio programs are crammed with news since I fear we are far more unsettled with war — than you are over the Atlantic! When tuning into European stations one usually hears French stations battering Germans, or Italian stations battering English; so it is quite a pleasure to be able to listen to American programs, which contain neither malicious propaganda nor unpleasant news! So Long America!

Michael V. Christopherson

WORLD WIDE LISTENERS' LEAGUE

In time of war, prepare for peace

Today thousands of radio listeners are turning to their shortwave dials for new and interesting programs. Many of these listeners are finding that radio stations of war-torn Europe afford an interesting backdrop, — but not always a reliable one — for international affairs. Others have found the shortwave merely an amusing means of "tuning-in" far corners of the world. But intelligent listeners in all parts of the world have found that the unusual work of the World Wide Broadcating Foundation, offers something strikingly different in shortwave broadcasting.

Each day as the regular programs of the World Radio University go out over the airways into the homes of all nations, new friends are added to the growing list of WRUL listeners. But those listeners who want to have a more active part in an educational broadcasting project become members of the Listeners' League. The World Radio University is a universal school, where all share in the work that is "dedicated to enlightenment".

Members of the Listeners' League receive all regular copies of the World Wide Listener, as well as special notice of important programs. Through their contributions, small and large, they aid in the great work of supporting the World Wide Broadcasting Foundation, which is non-commercial and operates entirely without financial profit. World Wide Listener League members become the supporters of this new idea of a World Radio University, working for the cause of peace and enlightenment.

How to Join

12 month membership: \$2.00 6 month membership: \$1.00

Direct any contributions to the World Wide Broadcasting Foundation, University Club, Boston, Massachusetts, U. S. A.

THE ROLL CALL OF THE LISTENERS' LEAGUE!

"Nation shall speak to Nation"

Great Britain Bermuda France Haiti Porto Rico Germany Italy Panama Belgium Argentina Netherlands Mexico Switzerland Cuba Estonia Honduras South Africa Nicaragua New Zealand Brazil

United States of America