

The Menace of SHORT

Mussolini twists the English Lion's tail by broadcasting into the Near East.

"Boring from within" is now the accepted preliminary to modern warfare. It is a potent and insidious force that paves the way for armed invasion.

"More than all the peace conferences of history radio has served to make the concept of 'Peace on Earth, Good Will Toward Men' a reality, and, taking the world by the hand, has led it one big step farther down that trail that ends in Utopia."—Maj.-Gen. James J. Harbord, chairman of the board, Radio Corporation of America, in an address ten years ago.

TODAY the nations of the world are engaged on a gigantic new battlefield with waves and words as weapons; the domination of millions the objective. The tactics are all alike—to broadcast their own dogma and to malign their enemies in as many tongues possible.

While the dictator-ridden countries have led the attacks in this war of the waves, Great Britain lately has been forced to join. America has kept out of the martial fray so far but is making it a sort of war of Swords and Roses by launching a new diplomacy of peace through short-wave broadcasts to our neighbors.

Preoccupied with the menace of bombing planes and anti-aircraft defense, the world military strategists had almost overlooked the guns of radio. Conceivably wars of the future may be won through these cannons of the kilocycles. They fire no bullets. Their ammunition is propaganda. Their bombardments from lofty broadcasting towers stop at no frontiers. Penetrating into the deepest of bombproof shelters, they also filter into the most peaceful of homes. They are mighty weap-

ons in the gigantic struggles to subjugate peoples and races, to bring them under the yoke of dictators.

While the war by radio propaganda is the fiercest over Europe, the western world has not been overlooked. Each day more than 40 so-called "newscasts" are aimed through directional antennae at the United States. All are in English, deftly garnished with fine music and stirring drama. But their purpose is to sow seeds of discontent and malice.

To democracies, the most dangerous transmissions come from Germany, Italy and Russia with the Spanish factions and Tokyo not so far behind. Germany's campaign has been most effective. Her drenching of Austria with Nazi "kultur" and sedition undoubtedly fired the Dollfuss murder coupe and provided the opening wedge for the recent entry of Hitler's minions. The constant and unrelenting blasts of propaganda forced Schuschnigg to Berghof to yield to Der Fuehrer's promises—or threats.

Mussolini's attacks against the British in the near east—his honeyed protestations that he was the real champion of Islamism had a telling effect in Palestine—and even India. This was the gadfly that stung Great Britain into the conflict.

Thus a few months ago she launched a new million-dollar superstation at Davenport to enter the international propaganda babel of Russia shouting in 57, Italy in 18, Germany in 6, England in 5 languages.

Every day since January 1, Great Britain, using the new radio artillery, has been spraying the near east with soft soap and pap. But the counterblast to Il Duce's voice has fallen flat. The Bedouins, it seems, prefer Mussolini's seductive Arab singers from Bari. They say Mussolini's Arabic is more genuine, too.

Britain's insistence that Arab countries are flourishing under Empire mandate are not too convincing.

"If Great Britain wishes to serve the Arabs," they say, "let her serve them by settling the problem in Palestine."

The Italo-British war-by-air in the near east contributed materially to the recent crisis which cost Foreign Minister Eden his official neck. When it was all over the British Lion was eating out of Mussolini's hand. The war by air came near shivering the timbers of the Empire.

Let's take a closer look at this international combat-by-kilocycles. Germany's system is probably the most efficacious Focal point for the Hitler system is at Zeesen, 20 miles south of Berlin where a dozen lofty towers hurl stentorian voices

Stalin battles the opposing factions within and without the Soviet by means of regular short wave broadcasts.

WAVE PROPAGANDA

by LARRY WOLTERS

at the three Americas, Africa, and eastern Asia and Australasia.

Germany's world-wide propaganda efforts would have been impossible prior to the development of shortwave transmission. Long wave stations—on the broadcasting band—roughly speaking, have an effective range of 500 miles.

Short waves, through the skip effect, reach peoples half way round the world, and also deceive the folks at home.

These waves are bounced up into the stratosphere against the Kennelly-Heaviside layer of ionized gases, and then are accurately deflected on the countries aimed at. Thus they bounce across the ocean from Berlin to New York and westward, reaching the audience for whom they are intended. Oddly enough, these same impulses, carried thousands of miles away, can be heard at the point of origin for only about a radius of five miles. Thus nature has aided the dictators in dispatching rosy lies about home conditions and spreading fear and hatred without their subjects knowing or hearing.

Even television, still in the testing laboratory in America, already has been commandeered by Hitler. Germany's war department long since has taken over visual-radio.

"That was done," an American radio manufacturer observed recently. "so that the German people could be made to look at as well as listen to Hitler, Goering and Goebbels without being able to take a shot at them."

Listen they most definitely do. Fears of persecution by the secret police get Hitler an audience of three-fourths of the total population when he steps to a microphone. A closer look at the German system reveals why it is so effective.

Hitler realized the might of this weapon as soon as he seized the government. He proceeded to organize it so that it might serve him to the utmost. He ordered all manufacturers to build a standard three-tube "peoples" receiver—cheap enough so that all could afford it, yet not powerful enough to reach beyond nearby stations. That was to prevent eavesdropping on foreign broadcasts—particularly those from Russia. Many a Nazi burgher has encountered trouble with the secret police for listening to the dulcet waftings from Moscow.

Having organized broadcasting at home Hitler turned his attention to a short wave system to sell Naziism abroad. He did a sound job of it.

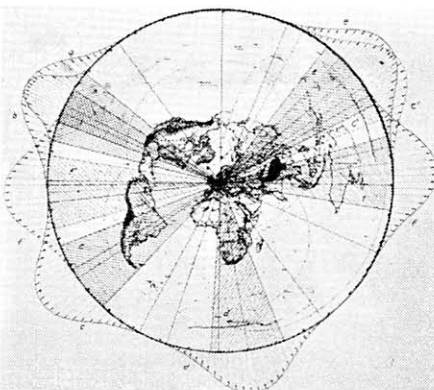
The war of the waves may seem a dis-

(Continued on page 67)



Not satisfied with impressing his doctrines within his own frontiers, the modern dictator sees that his propaganda is carried world-wide.

A radio coverage map clipped from a German source shows how the famed station at Berlin is designed to reach every civilized nation.↓



With war clouds gathering, the propaganda radio operators are fully equipped to carry on the important work under all emergencies.↓



Persuasive, yet forceful, the dictator pitches his speeches so that the listeners in foreign countries are completely taken in. Truth is the least of his worries in his short-wave conquest.



Short Wave Propaganda

(Continued from page 15)

tant and far off affair to most American listeners with their devotion to Charlie McCarthy, Rudy Vallee and Bing Crosby. But at the same hours their favorites are on the broadcasting band the seductive offerings of Hitler are filtering into our homes by short wave and the number who listens is increasing day by day as receivers are improved and reception of transmissions from abroad perfected.

Listeners have been organized, too, in America as well as elsewhere throughout the world. Pro-Nazi organizations hold regular listening parties at which communal attention to the voices of Hitler or his henchmen is mandatory. And many Americans of German descent tune in on the entertaining programs well interlarded with Nazi pap.

A most effective device are the Mail Box programs. Letters and contributions to the Nazi cause from Americans are acknowledged on various Mail Box hours throughout the week and personal messages exchanged between individuals in the Nazi homeland, and friends and relatives in America.

American tourists are regularly extended the privilege of talking to folks at home. Their remarks are, of course, rehearsed and censored lest any untoward remarks be made about Nazi-dom. The tourists usually point out that Germany does everything better than we do at home, that great strides forward are everywhere apparent. These mail boxes are packed with propaganda. Often it is as well sugar coated and as deceptively presented as the commercial advertising in our own sponsored programs.

Germany's tactics in newscasts in English are particularly irritating to the British. Not only do the Germans employ announcers with the same Oxford accents as the BBC announcers, but they follow British broadcasts on the air on channels just a hairsbreadth away from those of England. Thus at 7:40 p. m. (E.S.T.) England comes on at 11.75 megacycles; when they sign off at 8:15 Germany comes on at 11.77 giving a pro-Nazi colored interpretation of the day's events. Many a listener must be fooled into believing that he is hearing London.

This sort of strategy has angered Britain greatly. It has even been the subject of debate on the floor of the house of commons. The British propaganda committee is considering ways of retaliating.

A Berlin newscast, if heard from the beginning, is easily identified. It starts off with noting Hitler's activities for the day. The announcer seldom gets far before he gets in a plug for the dogma of the nation, or, for glorification of the doctrines of one or more of Der Fuehrers political bedfellows. This kilocyclic backscratching is one of the cardinal tenets of short wave propaganda campaigns.

Mussolini's visit to Berlin last fall offered an opportunity to see the propaganda machine operating in high gear. Leaning heavily on superlatives, the friends in fascism extolled one another, dwelling on

the glories of national socialism and picturing graphically the horrors of bolshevism.

Hitler's first words on this occasion touched on the radio aspects of the meeting.

"This demonstration," he pip-squeaked, "is being closely followed by the national communities of two countries, numbering 115 million persons, besides hundreds of millions in other parts of the world who are following the proceedings by radio."

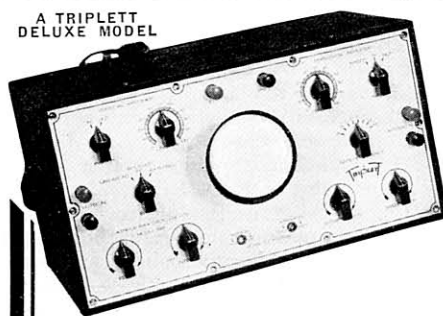
Then followed accusations of "Democratic and Marxist International revels in demonstrations of hatred." This sort of thing filters into American homes today and every day.

"Everything that Germany and Italy have in common," roared Il Duce into the microphone when Hitler had finished, "is most clearly expressed in their joint struggle against bolshevism, the modern counterpart of the darkest Byzantine tyranny—that unparalleled exploitation of the trustfulness of the lower races, that regime of starvation, bloodshed and slavery."

"Since the war Fascism has fought against this scourge of humanity and the depression which it nourished . . . thus we have faith in Spain where thousands of Italian Fascist volunteers have fallen for the sake of Europe's culture, a culture which may yet see a revival if it will but turn a deaf ear on the false prophets of Geneva and Rome."

"Comrades beyond the frontiers of our own countries, we like you, make no propa-

A TRIPLETT
DELUXE MODEL



Model 1691—with 3" Cathode Ray Tube. Dealer Price.....\$62.50

Model 1690—with 2" Cathode Ray Tube. Dealer Price.....\$47.00
(In Metal Case)

ADVANTAGES

This new Triplet Oscilloscope is complete. In addition to radio servicing, it has invaluable applications in radio transmitter, sound equipment, industrial and educational fields.

The cathode ray tube with exclusive Triplet turret type mounting can be moved up or down or to either side for adjustment of the screen to an angle always in direct alignment with the user's line of vision. Adjustable shield can be pulled out to project beyond the screen for easy reading in brightest daylight on Model 1690. (Model 1691 has snap-on shield.)

The Oscilloscope incorporates separately controlled resistance coupled vertical and horizontal amplifiers. Vertical and horizontal plates can be either direct coupled with

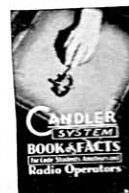
ALL NEW TUBES FOR THE TRANSMITTING RADIO AMATEUR
RCA—RAYTHEON
TAYLOR—EIMAC
ALL TYPES IN STOCK FOR RUSH SHIPMENT
CAMERADIO
 963 LIBERTY AVE. PITTSBURGH, PA. 30 TWELFTH ST. WHEELING, W. VA.
 Established 1919

HERE'S GOOD NEWS!

52 PAGES OF VITAL INFORMATION EVERY OPERATOR HAS BEEN WAITING FOR

IT'S FREE!

WRITE TODAY



Here, at last are the answers to these questions you've been wondering about—all in one free book! New F.C.C. regulations. Questions and Answers to Exam questions. Tips on speeding up your code. How to Practice Effectively, etc. Read what the World's Leading Ops have to say about acquiring professional technique. Beginners and advanced operators will profit from this book. NEW 1938 Edition. Your copy is ready. Write TODAY!

CANDLER SYSTEM COMPANY
 Dept. R-5, ASHEVILLE, NORTH CAROLINA

Turn Tube in Any Direction For Direct Working View With This OSCILLOSCOPE

Now Available With 3" Tube

- Exclusive Turret Type Tube Mounting for Adjusting Screen to Any Angle for Direct View
- Extremely Brilliant Pattern
- Linear Sweep 15 to 20,000 Cycles
- 2" and 3" Cathode Ray Tubes.

amplitude control, or through amplifiers with amplitude control. Can be used with any type frequency modulated Signal Generator. 60 Cycle A.C. operated.

Linear sweep from 15 to 20,000 cycles. Sweep (either internal, external or 60 cycle) may be used through amplifier or direct with amplitude control. Positive lock. All controls on panel. No interactional controls.

The special instruction book furnished is a treatise on the subject every serviceman should have. It has been prepared by one of the leading experts without sparing costs. Nothing like it has before been furnished.

Model 1690 also is available in black leatherette carrying case with removable cover. Dealer Net Price.....\$51.00

THE TRIPLETT ELECTRICAL INSTRUMENT CO.
 155 Harmon Dr., Bluffton, Ohio

Please send me Catalog on New Triplet DeLuxe Line.

Name

Address

City State



READ Like an SEND CODE Expert

Learn Quickly at Home—Get Real SPEED



It's easy, fascinating, to become a good op. with the NEW ALL ELECTRIC MASTER TELEPLEX CODE TEACHER to help you. Only instrument ever produced which records your sending in visible dots and dashes—then sends back to you at any speed you desire. Also sends practice work, recorded by an expert. That is why so many schools teaching code prefer Master Teleplex, why thousands agree this method is surest and quickest.

FREE BOOK We furnish Complete Course, lend you Master Teleplex, give you personal instruction with a **MONEY-BACK GUARANTEE**. Low cost. Send today for booklet RN-5; no obligation.

TELEPLEX CO.

72-76 Cortlandt St.

New York City

CODE—TAPES FOR EVERY NEED



You can easily learn or improve your Radio or Morse Code—typical messages are sent you by the INSTRUCTOGRAPH, at any speed. Senior model with 10 tapes and Book of Instructions—\$20.25. (Rented at low cost.) Junior model with 5 tapes and Book of Instructions—\$12.00 (Not rented). Complete oscillator equipment, less battery, \$6.50. Send for full information today to—

INSTRUCTOGRAPH CO., Dept. NR-5, 912 Lakeside Pl., Chicago, Ill. Representatives for Canada: Radio College of Canada, 863 Bay St., Toronto.

Buy on Cash or Terms—

HALLICRAFTER and R.M.E. SHORT WAVE RECEIVERS—SPEED-X and VIBROPLEXES.



because of the number of curves and combinations making it possible to give my customers a perfect control at all times."

JACK VAUGHAN

Manager Service Dept., Broadway Dept. Store, Los Angeles, Calif.

Proud as a peacock, Old Man Centralab adds this West Coast testimonial to the hundreds he has received from coast to coast . . . from air lines and men in the tropics. Wherever you are . . . that service job is no longer a problem if you solve it with CENTRALAB Controls and fixed resistors.

Centralab

DIVISION OF GLOBE UNION, INC
MILWAUKEE, WIS.

British Centralab, Ltd.
Canterbury Rd., Kilburn
London N.W. 6, England

French Centralab
Co., 118 Avenue
Ledru-Rollin, Paris
XI, France

ganda in the ordinary sense of the word in order to gain adherents. We believe that truth will finally conquer."

Propaganda—every bit of it!

Not long thereafter on the 15th anniversary of the "March on Rome" Mussolini put on just as big a whoopla at home. The whole business was put on the international airlines and rebroadcast at the dinner hour for the benefit of American listeners. Mussolini's bellowing on this occasion was supported by a terrific fanfare of fascist anthems, marches by blaring bands and vocal acclaim, with hundreds of thousands participating. The last raucous note had no more than reached the airways when Hitler's henchmen were at their own microphones with ecstatic compliments and an interpretation of Germany's part in the affair.

Recently, Hitler's voice yelled threats across Europe for two hours and forty minutes. Hitler slew imaginary dragons and challenged all comers. Following the broadcast, the whole Reichstag show was retransmitted in five languages with mighty repercussions and reverberations ringing around the world.

"With one country alone have we scorned to enter into relations," he belched. "That state is Soviet Russia. We see in bolshevism more now than before the incarnation of human destructive forces.

"I believe a Japanese defeat in the Far East would never be any good to Europe or America, but would exclusively benefit bolshevist Soviet Russia," he admonished.

"I do not consider China mentally or materially strong enough to resist any bolshevik attack on it, but I believe even the greatest victory for Japan would be infinitely less dangerous to the culture and general peace of the world than a Bolshevik victory would be."

All of which is neither true nor possible.

From Moscow one gets from 7 to 8 p. m. (E.S.T.), in English, quite another story. Stalin is now the hero, Hitler, Mussolini & Co. the arch-fiends. Moscow devotes much of the day on its powerful shortwave station for attacking the policies and personalities of all other countries—in German, French, Czech, Spanish, Dutch and many other tongues. Two hours are devoted to exposing the wickedness of the Nazi tyrants and calling on German workers to revolt against them.

"The rotten foreign capitalists," listeners are told with monotonous repetitiousness, "the Fascist, reactionary, chauvinistic dictatorships are exploiting the workers of the world. In Germany, in Italy, in the Spain of Franco, in Bulgaria the working people have no rights of any kind."

Moscow, listeners are assured, is always on the side of oppressed peoples. Didn't Russia provide its citizens with the most liberal constitution in the world? Nothing was said, however, of the fact that there was only one candidate—the official Communist approved man for whom they could vote in each office.

The Moscow "news" periods are regularly interspersed with long and dull readings from the Marxist prophets. The news items are similar to those coming from other dictator ridden countries except that in Russia the triumph is all on the side of the anti-fascist ideologies. Examples:

"The Peoples Front the world over grows steadily stronger. . . . The Spanish Loyalists again have advanced their heroic struggle. . . . The Chinese again repulsed the Japanese in a fierce conflict. . . . The Japanese continue their bombing of defenseless towns, killing many workers, women and children. . . ."

Spain gives a striking example of the use of radio in wartime. The Loyalist government has had the advantage because in the transmitters of Madrid, Barcelona and Valencia they have had the biggest guns. The radio, in fact, has been the only means of communication over much of Spain during the civil war. It has even had the approval of the Vatican in broadcasting masses from the Franco side to the faithful on the Leftist side since no public worship is permitted there.

In their broadcasts each side grossly exaggerates so that it is impossible to discover the real truth.

"Believe us, this is the real truth," cried Seville, in the hands of the rebels, one evening, "do not believe what Madrid says. On all sides our armies are advancing. We have captured 12,000 prisoners. . . ."

Suddenly, in swelling volumes, came the Leftists' jamming from Madrid and swamped the Seville station completely.

The Spanish war even produced a Radio General, Queipo de Llano, commander of a Rightist Garrison. He was at the microphone so steadily that he had practically no time to command. Queipo used language, which if it had been English, would have shocked the English speaking world. Favorite stunt was to make shocking revelations concerning the private lives of the Madrid cabinet chiefs.

Of late the Rebels, having no high powered stations, have been relaying broadcasts by way of Salamanca to Tetuan, Morocco, and Teneriffe, Canary Islands, for the English speaking world, inviting them to "try to know the new Spain—the Spain of Franco."

Similar use of radio is being made by the Japanese and Chinese in the far eastern conflict.

As far as America is concerned, the problem of coping with propaganda on the air is in the lap of the listener. Deluged with conflicting arguments he must fight his own way to the truth.

We must maintain eternal vigilance lest we, too, be drawn into the international babel. There are forces at work to get the government actively in the broadcasting business. There is, for instance, the proposal by a senator that the Federal Communications Commission censor all material before it goes on the air. There is now a demand for a single nationally owned and operated broadcasting station. That might be just enough to get us into the radio propaganda race. Might it not foreshadow the end of our private system of broadcasting with its benefits for culture and commerce?

Observing how completely radio has become the pawn of governments in all but a few remaining democracies—should not the American listener be moved to guard more zealously the principle of free speech—lest one day our land of the free, too, may go the "dictator" way, and we lose our freedom?

Foreign Newscasts in English Received in U. S.
POLITICAL COMPLEXION OF NEWSCASTS

TIME E.S.T.	RIGHTIST	LEFTIST	INDEPENDENT
	Fascist Nazi Insurgent Spain Japanese	Communist Russia France Loyalist Spain Chinese	British Empire Little Entente France League of Nations Vatican
A.M.			
3:20			GSB (9.51)—London GSD (11.75) GSG (17.79) GSO (15.18) (British)
6:00 (ex. Sun.)			VK3ME (9.50)— Melbourne (British)
7:30 (ex. Sun.)			VK3LR (9.58)— Lyndhurst (British)
7:30		XGOX (9.8)	
7:45	JDY (9.925)	Nanking	
8:30	Tokio		GSG (17.79) GSH (21.47) GSO (15.18) (British)
8:00	JZJ (11.8)—Tokio		HVJ (15.12)— Vatican City (Cath- olic)
10:15	JIB (10.535)—		GSF (15.14) GSG (17.79) GSH (21.47) GSD (11.75) (British)
10:30	Tokio		GSB (9.51) GSD (11.75) GSG (17.79) GSI (15.26) TFJ (12.235)— Reykjavik
NOON			OLR4A (11.84)— Prague (Little Entente)
1:00 P.M.			TPA3 (11.885)—Paris
1:40 (Sun.)			GSB (9.51) GSD (11.75) GSG (17.79) GSP (15.31) GSO (15.18) (British)
3:00			HP5J (9.607)— Panama City
3:10			HBL (9.595)—Geneva
4:00			HBP (7.797) (League of Nations)
4:45	EA9AH (14.05)— Tetuan, Morocco		HP5A (11.7)— Panama City
5:40			CSW (9.94)—Lisbon
5:40 (Sat.)			GSD (11.75) GSB (9.51) GSP (15.31) (British)
6:00 (ex. Sun.)	2RO4 (11.81)—Rome	EAR (9.488)—Madrid	
6:30			
6:30			
7:00	EA9AH (14.05)— Tetuan, Morocco	RAN (9.6)—Moscow	
7:15	CSW (9.94)—Lisbon	RKI (7.54)—Moscow	
7:30	EJ43 (10.37)—		
7:40	Salamanca, Spain, via Teneriffe, Ca- nary Islands		
8:15	Radio Nacional (10.37)— Salamanca, Spain		
8:30	DJB (15.2)—Berlin		
(Mon.-Thurs.)	DJD (11.77)—Berlin		
10:10			OLR4A (11.84)— Prague (Little Entente)
			GSB (9.51) GSD (11.75) GSC (9.58) (British)
10:30	DJB (15.2)—Berlin		
10:45	DJD (11.77)—Berlin		
11:30			CJRO (6.15)— Winnipeg
12:30 A.M.	JZK (15.16)—Tokio	TPA4 (11.714)—Paris	CJRX (11.72)— Winnipeg
			TPA4 (11.714)—Paris

This chart shows hours (daily), stations and frequencies in megacycles when international transmission in English may be heard, atmospherics permitting.

RADIO ENGINEERING

DEGREE
IN 2 YEARS

Complete Radio Engineering course in 96 weeks. Bachelor of Science Degree. Radio (television, talking pictures and the vast electronic field) offers unusual opportunities for trained radio engineers. Courses also in Civil, Electrical, Mechanical, Chemical, Aeronautical Engineering; Business Administration and Accounting. Also short diploma courses in Surveying (36 weeks), Drafting (36 weeks). Low tuition, low living costs. World famous for technical two-year courses. Those who lack high school may make up work. Students from all parts of the world. 55th year. Enter June, September, January, March. Write for catalog.

1658 College Ave.

Angola, Ind.

TRI-STATE COLLEGE

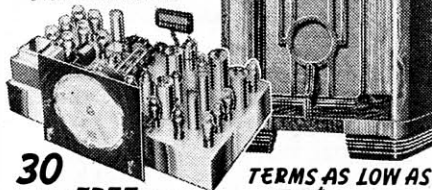
Amazing!...MIDWEST'S
ELECTRIC TOUCH BUTTON
TUNING...



FACTORY-
TO-YOU
SAVES
50%

ELECTRIC MOTOR DOES YOUR TUNING

20-TUBES
6 WAVE BANDS
only \$49.95
LESS
TUBES
NEW LOW BASE
PRICE CHASSIS



30
DAYS FREE TRIAL
TERMS AS LOW AS
50¢ A WEEK

ONLY Midwest offers split-second Motorized tuning. Just touch a button on top of radio and FLASH!... your station comes in perfectly tuned, in one second. World-wide reception up to 12,000 miles. Super power and 101 advanced features bring in weak distant stations like locals and assure glorious crystal-clear concert realism.

Famous Midwest Factory-To-You plan enables you to buy at wholesale price... to save up to 50%... to enjoy 30 days' FREE home trial... to pay as little as 50 cents a week.

Send for FREE 1938 Catalog
MIDWEST RADIO CORPORATION
Dept. RR11 Cincinnati, Ohio

PASTE COUPON ON 1¢ POSTCARD...OR WRITE TODAY!

MIDWEST RADIO CORPORATION
Dept. RR11, Cincinnati, O Name _____
Send me your new FREE catalog and complete details of your liberal 30-day FREE trial offer. Address _____
(Special offer and prices prevail only when dealing direct with factory by mail.) Town _____ State _____
User-Agents Make Easy Extra Money. Check Here ☐ for details ☐ Check Here for 1938 BATTERY catalog