

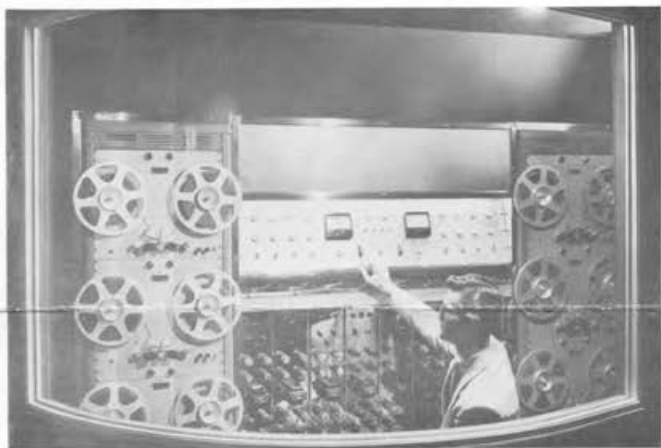
# Magnecord Inc

PUBLISHED BY MAGNECORD, INC.

225 W. OHIO ST., CHICAGO 10, ILL.

SEPT. - OCT., 1953

## William L. Dunn Named New Magnecord President



Arthur Murray dance instructor in Chicago studio examines the installation of 4-14s displayed in the reception room which 'pipe' music for dance instruction.

## And The ~~Band~~ 4-14 Played On . . .

Six lessons from Madame LaZonga, fabled in popular song several years ago, could have been made even more pleasurable at Arthur Murray Dance Studio in Chicago.

The Chicago Studio, a showplace in decor and electronic convenience, relies on six Magnecord 4-14 continuous tape players for obviously necessary music.

The six 4-14s are mounted behind curved glass in the reception room and operate continuously from 1 to 10 p.m. daily. Output of the tape is fed a bank of custom amplifiers readapted from a disc record system and then to 12" speakers in each of the 14 studios used for instruction.

Each of the studios has a volume control as well as a mechanism for switching to any of the six programs. Each of the 4-14s contains four hours of the same type music. There is one machine each with waltz, fox trot, rumba, samba, tango and mombo music, and any reel can be played at any time in any room.

According to Al Vanti, manager of the Chicago Arthur Murray Studios, the installation may well set a pattern for dance studios throughout the country.

## Out of the Flames Chapter Three

In the past we've told true tales of Magnecorders that got plastered (with wet plaster) in a tropical typhoon or were found, battered and abandoned, in the bottom of an old mill stream.

Latest chapter in the perils of the PT-6 concerns a unit caught in a fire which destroyed the studios of radio station WTHI. The charred unit was given up for lost, but months later, an emergency arose. An engineer remembered. He tinkered. And the indestructible PT-6 ran again.

(To be continued.)

## Ex-Raytheon VP Heads 'New Faces'

The election of William L. Dunn, former vice president of the Raytheon Manufacturing Company, as president of Magnecord, Inc. is the latest and most important step in executive reorganization of the company. Mr. Dunn resigned from Raytheon where he headed the sales and engineering departments and assumed his duties as operating head of Magnecord September 21.

Other appointments find John Hines as director of sales, Michael Seidl, chief engineer, and George Gynn as sales engineer.

Dunn had been associated with the Raytheon organization and its subsidiary, Belmont Radio Corporation, for 21 years. He joined Belmont in 1933 as chief engineer and was named general manager of the special products division in 1940. When Belmont became a subsidiary of Raytheon in 1945, he was named vice president.

A native of Asheville, N. Carolina, the new Magnecord president graduated from John Hopkins University and joined the Schrader Valve Company of Brooklyn as a research physicist. He entered the electronics industry in 1927 as development engineer for Charles Freshman Company.

(Continued on page 2)



William L. Dunn



Norris Haight (left), head of the sound lab at the GM Proving Ground, plays a binaural magnecording of camshaft noises to a "jury" of five Oldsmobile engineers.

## GM Engineers Hear Binaural 'Witness'

A binaural Magnecorder and an ultra high-speed motion picture camera are two unusual pieces of equipment that have been utilized by Oldsmobile Division of General Motors to improve performance of the valve mechanism in Oldsmobile's "Rocket" engine.

The binaural Magnecorder has been used to determine a camshaft design which would make the quietest valve mechanism. Tests with both the camera and Magnecorder were conducted at the GM Proving Ground at Milford, Mich.

Function of the valves in a high compression automotive engine is to open fast and quietly, remain open as long as possible, and then close fast and quietly. The camshaft opens these valves in proper timing.

The binaural unit has been utilized to compare the noise levels of various types of camshafts to determine which one gives the most noise-free operation. In these tests the two microphones were placed within a foot of the engine. The valve mechanism noise at idle speed and off idle speed was then magnecorded. This was done for each of a group of eight sample camshafts.

These magnecordings were then played in various sequences to a jury of five engineers. The camshaft designs voted most noisy were eliminated. In this way, the quietest camshaft was eventually determined.

The GM engineers made use of two PT6-J amplifiers previously purchased, and a PT6-BN mechanical unit.

## William L. Dunn Elected Magnecord President

(Continued from page 1)

He was successively chief engineer of Colonial Radio Corporation, Long Island, N.Y.; Sprague Specialty Company, North Adams, Mass.; and, Grigsby Grunow Company, Chicago. He was vice president of Detrola Radio Corporation of Detroit before joining Belmont.

John Hines, Magnecord's new director of sales, was formerly with the company as sales engineer. He left a year ago to become district sales manager of Erico Products, and returned in his present position following the resignation of Speck Barker.

A native of Wilkinsburg, Pa., Hines received his bachelor's degree in electrical engineering at Carnegie Institute of Technology in 1947. Prior to joining Magnecord in 1951 he was chief engineer for radio station WBVP, Beaver Falls, Pennsylvania.

Mike Seidl was named chief engineer in August. He comes to Magnecord from the Boeing Airplane Company, Seattle, Wash., where he supervised a group of engineers and physicists in research, design and development of electronic and acoustical equipment.

Previous to this, he was a physicist in the U.S. Forest Products Laboratory in Madison, Wis., and a researcher for the Marinette Paper Company, Marinette, Wis. Seidl received his bachelor's degree in electrical engineering at the University of Wisconsin.

George Gynn also received his bachelor's degree in electrical engineering at the University of Wisconsin. Before joining Magnecord, Gynn was engineer for KHON, Honolulu, Hawaii, and more recently was engineer for the State Radio Council of Wisconsin.

## Magnecord Fidelity Too Good in Tulsa

Shades of Orson Welles and the Martian invasion!

As a feature of "Brotherhood Week," Station KTUL, Tulsa, Okla., presented a magnecord dramatization of the 1947 tornado disaster which struck at nearby Woodward, Okla. Object of the program was to graphically depict the parts played by people of all races and religious groups in indiscriminately aiding the storm victims.

KTUL News Director Jack Morris aired a realistic bulletin describing the extent of deaths, injuries and damages in the Woodward disaster. A major part of the program was made of on-the-spot descriptions and interviews magnecorded in 1947.

The results were alarming! People who tuned in late to the program and did not know that the bulletin was simulated were startled and confusion reigned . . . Shades of Orson Welles . . .

### NEXT ISSUE

We'll have interesting details of exciting additions to the Magnecord line.

## Magnecord Staple in Finnish Diet



One of the most interesting installations of Magnecord equipment is that recently completed in the hall of the Finnish Diet, and first placed in a legislative hall to come to our attention.

Recording can be made from any one or several of the seventy-two microphones on the floor of the assembly. Small three-inch reels are used so that a typewritten transcription can be started almost immediately after the beginning of the recording.

The Magnecord installation consists of four PT6-AH recorders and two PT6-P mixer amplifiers. The control desk shown in the photo is placed on a balcony overlooking the hall.

The switching system is extremely flexible. A switch is provided for each microphone on the floor, placed on a floor-plan switchboard. Indicator lights at the microphones show when each is on the recording channel.

**TAPE  
TALK  
ON**

# New Portable MagneCordette

## 'As Maine Goes' . . . With MagneCorders



Most new tape recorders begin in either engineering or development departments, but the new portable MagneCordette with power amplifier and speaker had its beginning in the sales office, where the need for a versatile, professional magnetic tape recorder-reproducer unit was seen, particularly for the church and school fields.

The portable MagneCordette combines the PT6-AH basic recorder mechanism and the PT6-G "custom" amplifier with the new PT6-K power amplifier speaker combination.

The PT6-AH recorder mechanism is recognized as the greatest value in the professional field. It is the mainstay of radio stations and choice of sound engineers throughout the world. It features separate erase and record-playback heads with interchangeable capstans and pressure rollers for 7½" and 15" tape speeds, and includes a fast forward and high speed rewind.

The PT6-G "custom" amplifier is a versatile unit which acts as a recording amplifier and as a pre-amplifier in playback. The front panel contains a volume indicator, volume control, 3-speed equalizer selector, earphone jack for monitoring, power-"ON" pilot light, and a microphone input.

The PT6-K 10-watt power amplifier with speakers in a portable carrying case meets all the requirements of high fidelity equipment and was designed for use with the MagneCordette. The portable amplifier is mounted in a carrying case connected to the rear of the MagneCordette.

Two wide-range loud speakers are mounted on the amplifier with the case acting as a loud-speaker baffle. All controls and connections of the amplifier-speaker combination are readily accessible on the front of the unit, as well as a 110-volt power outlet.

The portable speaker-amplifier combination may be used by itself, as a public address unit with microphone, radio, phone or other sound source for assemblies in school auditoriums or for church services. The front cover of the portable MagneCordette may be fitted on the PT6-K speaker-power amplifier combination making it a convenient package for public address work and eliminating the bulk and weight of the recorder.

Similarly, where recording only is being done, the portable amplifier and speaker may be left behind and again only that portion of the unit necessary for the particular job need be taken.

Specifications on the recorder and recording amplifier are interchangeable 15 or 7½" per second tape speeds. Also 3¾" per second speed is available with the addition of a two speed motor. Frequency response at 15" per second is from below 50 cps to 15 kc ± 3 db; at 7½" per second, 50 cps to 8 kc, ± 2 db.

Specifications on the power amplifier and speaker combination show an amplifier frequency response of ± 2 db from 30 cps to 15 kc. Maximum power output is 10 watts through integral twin acoustically-matched loudspeakers or from a terminal strip with 4, 8, and 16 ohm taps for external speakers or multiple earphones.

It's late for election stories, but this is one of radio station participation in civic affairs and MagneCorders that we would have told you months ago.

It revolved around radio station WIDE, Biddeford, Maine, and station manager Arthur Deters. It concerned an incumbent Democratic Mayor named Lausier and a Republican candidate named Lessieur; the York County Superior Court which was asked to rule on a contested election; a City Clerk who refused to surrender the ballots; the County Sheriff and the Maine State Police who were sent to get the ballots.

While the controversy raged, Lausier who had an original majority of 40 votes was inaugurated, and presided over a council meeting at which he tried to appoint subordinate officers of his choice. The election had returned a Republican majority of 6-5 in the council and one motion proposed by the Mayor was voted down by the 6-5 margin.

When the minutes of the meeting were read, the motion was shown as carried. The People of the City of Biddeford appealed to the Attorney General of the State of Maine.

The controversial meeting had been aired by WIDE, and, in a routine manner, had been recorded on the station MagneCorders. Both sides had obtained copies of the tape. When the case came to trial, the minutes coincided with the magneCord account — showing the motion voted down, the clerk stated he had read incorrectly from rough notes and had time to rewrite them correctly.

Later, Lessieur was declared Mayor by the Court.

## S.A.V.E. MagneCord Dubbing Installation



S.A.V.E. (Special Audio Visual Equipment Co.), is a non-profit organization whose only purpose, according to owner R. H. Zima, is "to harness the dormant power of untrained laymen to help finish the work of God."

This ambitious program of the Minneapolis, Minnesota, church leader is accomplished, to a great extent, through use of MagneCorders.

Mr. Zima records bible instruction and duplicates the tapes on a large MagneCord duplicating installation. The complete unit

utilizes ten PT6-AH mechanical units, three D-3 dubbing amplifiers, a PT6-J amplifier, and a PT6-M auxiliary spooling mechanism. Mrs. Zima (above) does much of the duplicating work.

The magneCord tapes are then sent to laymen and ministers throughout the world who are able to conduct bible studies although many of them lack the training to do so without the recorded programs. Additionally, S.A.V.E. also provides inspirational recorded services for shut-ins and sick.

# Magnecorder Slows Rush of Time



Prof. Grant Fairbanks (left) and Dean W. L. Everitt with the "time compressor" invented at the University of Illinois.

When political conventions roll around again, the public may be spared endless hours of speech-making through a "time compressor" developed recently by Dr. Grant Fairbanks, director of speech research at the University of Illinois.

Listeners will get every inuendo when a 45-minute speech has been slimmed down to 30 minutes. The "time compressor" takes speech or music and compresses it without dropping a single syllable or note and without changing the pitch as happens when a recording is simply speeded up.

Idea for the time compressor originated in Prof. Fairbank's knowledge that the ear can hear faster than the mouth can speak. Since the human speech organs cannot be speeded, he went to work with theoretical and mathematical principles and a Magnecorder.

He made a tape recording, cut the tape into small bits covering a few hundredths of a second each. He then threw every other one away and pieced the remaining bits together. The result was round but understandable, and the sound pitch had not been altered.

Dr. Fairbanks enlisted the aid of Dean William L. Everitt of the College of Engineering and Robert P. Jaeger, an electronics technician then at the University, to develop an electronic device to automatically discard part of a sound signal, piece the retained portions together smoothly, and keep the pitch of the signal unchanged.

Its mechanism involved a set of four recording heads in a revolving drum around which the tape turns. The pickups are arranged like the spokes of a wheel. Only one head touches at a time. Tape and drum run at different speeds, and these can be varied independently. Also, the drum can be operated at a slower speed to "expand" the recorded signal.

An important possibility of the machine is that it can be used to compress the tones of a voice and then expand them back to the original understandability. This is an almost instantaneous process which may permit a telephone or radio circuit to carry many conversations where one is now carried, opening new vistas in the problem of "bandwidth reduction."

- Other amazing applications include:
- Radio programs "tailored" to fit broadcasting time.
  - "Talking books" for the blind presenting information understandably at nearly twice present speed.
  - Conferences, conversations, airport control directions, and the like recorded on less tape and reviewed in much less time.
  - Faster reports over long-distance telephone or radio.
  - New production opportunities for motion pictures and television.
  - New techniques for teaching.
  - New approaches to study speech, music, and language.

## Picture of Joy



Picture of a man enjoying himself and his Magnecordette: Dreams Taylor, noted music critic, relaxes in his study with his new high fidelity installation by ASCO sound, Magnecord distributors.

## Magnecorder Sees, Reads for Joe

Students and faculty at Syracuse University are going to miss Joe Giovannelli more than two-platoon football this Fall.

With his rambling Magnecorder, the slight 24-year-old Brooklynite had been tuned in on about every important noise on the campus until he graduated last May with a degree in psychology.

Joe was more dependent on his Magnecorder than most—Joe is blind, and his PT6-JAH served as textbooks and notes throughout his collegiate career.

With the portable recorder at his side, he took "electronic notes" during lectures. Friends read his textbook lessons into his Magnecorder so he could listen later to his "reading" assignments. He has a stack of 530 discs, made from Magnecorder masters which comprised his textbooks.

Now that he's graduated, he hopes to start a studio to make recordings for advertising agencies, radio stations, conferences, conventions, and just about anything else you want recorded. Needless to say, we wish him luck and success.

## WHO USES MAGNECORDER

For new readers of Magnecord Ink—a word. This short column was begun several months back because we were asked in an honest, bland and forthright manner, "Who uses Magnecorders?" Purpose of this listing is to answer that question.

The below listed names were taken from warranty cards returned within a ten day period in August. No radio stations are included in the list since it would be unfair to the many stations which already have large Magnecord installations.

Listing here does in no way constitute an indorsement of Magnecord products by the company listed, but rather is a simple statement that each of the organizations has purchased standard Magnecord equipment.

The listing represents only a portion of the cards returned.

- Mercury Recording Corp., New York
- Phillips Elementary Sch., Ruston, La.
- Univ. of Florida, Gainesville
- Canadian Aviation Electronics, Montreal
- School of Medicine, Creighton U., Omaha
- First Baptist Church, Leslie, Mich.
- E. I. duPont de Nemours, Newark, Del.
- McCann-Erickson Adv., New York
- Austin Symphony, Austin, Texas
- Phileo Corp., Philadelphia
- Kaimuki H.S., Honolulu, Hawaii
- New Jersey St. Police, Trenton
- U. of Nebraska, Omaha
- First Baptist Ch., Burbank, Cal.
- Kentucky State Police, Frankfort
- VA Hospital, Oteen, N. Car.
- United Aircraft, Edwards, Cal.
- McCusker Funeral Home, Claremont, N. H.
- St. Patrick's Church, LaJunta, Colo.
- Harold's Club, Reno, Nev.
- Esso Standard Oil, Panama City, Panama
- American Heart Assoc., New York
- Bd. of Educ., Amsterdam, N.Y.
- Hobart Arena, Troy, Ohio
- Lehigh University, Bethlehem, Pa.



Joe Giovannelli and friend