



# The <sup>McMURDO</sup> SILVER TIMES

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No. 7

## McMurdo Silver's Christmas Present to You!

1936 has been the finest year in our history. More and more people who understand technical superiorities in radio reception are coming to the McMurdo Silver Laboratories to have a radio receiver built to their own specifications.

The time and terrific expense of *actual individual custom-building* of each receiver has proven to be very much worthwhile. Our work has been appreciated by a far greater number of technical experts than we thought existed.

Even though we constitute only a small group of craftsmen we would like to follow



the lead of the big corporations and "split a dividend" among our friends.

So, McMurdo Silver and his staff are presenting a beautiful hand made \$80.00-list OXFORD cabinet to everyone who orders a MASTERPIECE V between now and January 5th absolutely free!

That is the end of our fiscal year—the time when we balance the books to see whether the profit was comparable to the pleasure and enjoyment we received from our work.

As January opens we start a new year. So, after that date this present will be impossible.

We have never made this offer before and we shall probably never be able to do it again—but until January 5th please accept this present with our compliments and our gratitude.

But this isn't all. Until January 5th you can have through your MASTERPIECE V, a modern electric phonograph by the simple medium of the attractive \$60.00 DERBY phonotable for only \$15.00!

So our Christmas present to you is really \$140.00 at list price worth of beautiful custom-built cabinet and electric phonograph for only \$15.00. But, like all Christmas presents, we can give you all this only until January 5th. All orders postmarked thereafter must of necessity be refused.

## THE MASTERPIECE V AS SEEN THROUGH THE EYES OF THE TECHNICAL EDITORS OF "RADIO NEWS"

This article is reprinted just as it appeared in the December, 1936, issue of Radio News. As you know, S. Gordon Taylor is considered one of the world's leading radio technicians. He states, "It may be said that this receiver should meet the most exacting requirements of even the most critical radio listener."



ALL SET FOR THE TESTS

*The receiver set up at the Fairfield Listening Post. The giant 18-inch, high-fidelity speaker is shown in the center of the overhead baffle. The small speaker is not a part of this receiver*

**T**HE fidelity of reproduction of the "Masterpiece V" receiver is so excellent that it at times seriously interfered with the conduct of the Listening Post tests of this receiver. Time and again the test periods would be devoted to listening to a program of fine music from a local broadcast station, the sheer enjoyment of which was too much to resist. Until the habit was formed of skipping the good locals when running tests, not much was accomplished either in the way of short-wave or DX listening.

### Tone Fidelity

The reasons for this impressiveness was found primarily in the fact that the overall frequency response of the receiver is such that it exceeds the audio-frequency range of most broadcast stations. By means of the two tone controls, bass and treble, the frequency response can be altered to suit individual taste, room acoustics and the requirements of different types of programs. It proved to be an interesting experiment to turn both controls to zero, thus eliminating all high and low tones and leaving only the reproduction of a very narrow range of tones centering around about 600 cycles. The effect was much like listening to a program through a metal tube. Then by gradually increasing the setting of the treble control the program would start to take on life, although still flat and "stringy". As the base control was advanced, the program would assume depth and body and finally, by the proper adjustment of the two controls a balance would be found where the music would become life-like in the extreme.

The "Volume Expander" system is

much too high for the home. However, by setting the expander knob at an intermediate level (the level is continuously variable) the right degree of expansion would be found, adding further realism to the music and overcoming the "leveling-off" of volume which takes place in the studio control room—a process which is necessary if the broadcast station is to maintain a reasonable modulation level at all times, yet not exceed 100 percent modulation on the loud passages.

### High Selectivity

Proceeding with the tests, the effect of the band width switch was studied. In the broad, or "Hi-Fi" position, which is intended for use in receiving local stations, the quality of reproduction was as described above. In the "Sharp" position the quality of reproduction still remained above the average but the selectivity and sensitivity increased tremendously with the result that distant stations were tuned in 10 kc. either side of each local station without any interference from the locals, except occasionally from the two strongest. A typical example of this is in tuning in the New Orleans station on 850 kc. while the 50 kw. local, WABC, was in full stride on 860 kc. This was accomplished on numerous occasions in New York City tests, in a location where WABC is the second strongest station heard. WOR, the strongest, seldom causes interference with the Chicago and Cincinnati stations on either side of it, and so it is with the other locals.

The ability of the receiver for DX work is almost unlimited. It offers an unusually good signal-to-noise ratio with the result that even during the latter

## Tests Prove Merits of "LAB-BUILT" SUPER

A report of the results obtained in tests of the Silver "Masterpiece V", conducted at the Fairfield and New York City Listening Posts

By S. Gordon Taylor

part of the Summer, whenever static was low enough to permit, stations in Minneapolis, Texas, Denver and numerous other distant locations including Mexico and Canada, were brought in often with thoroughly enjoyable volume, quality, and freedom from noise. This freedom from noise and the extreme sensitivity are undoubtedly due in large part to the fact that the receiver employs two tuned radio-frequency stages ahead of the first detector. During the late Autumn and Winter months these features will undoubtedly permit some excellent DX accomplishments.

one which really works. With its knob set in the extreme position and the volume control knob adjusted to make the soft passages in the music just comfortably audible, the loud passages would fill the room—in fact would rise to a level

### S. W. Tuning Easy

In starting the short-wave tests the first outstanding feature noticed was the effective band-spreading system. In the 25-meter band, for instance, the range from 11.5 to 12.0 mc. requires a 60 percent, or about 210-degree, revolution of the large tuning knob. Due to the large size of this knob, this means that the fingers travel nearly 3 inches in tuning through this one band.

The tuning system is unique and simplified to the utmost. Suppose the operator is tuning in the 25-meter band and wants to tune to the 31-meter range. Turning the tuning knob in the usual way, he will find the pointer moving rapidly and he continues to the far end of the desired band. Then turning the knob in the reverse direction he will find that it has automatically shifted to slow-motion action, providing band-spread tuning for one complete turn of the knob, enabling him to comb the 31-meter band thoroughly, back and forth, within this range of one turn of the knob. Going beyond the limit of one knob revolution in either direction, the high-speed action is resumed, permitting a quick shift from one tuning range to any other.

To further add to the convenience in tuning, the accurately calibrated dial is about 8 inches in diameter, and over it moves a knife-edge pointer. The calibrations for the 5 ranges are arranged concentrically, progressing from the low-frequency range on the inside, with a scale length of 4 inches, to the ultra high-frequency range (*Turn to page 377*)

## Testing a Super

(Continued from page 349)

at the outer edge, with a scale length of 12 inches. This wide-spread arrangement permits accurate reading on any range but to further facilitate this a small dial plate moves, just behind the tuning knob. This is calibrated in 200 divisions and serves the same purpose as the "second" hand used on some receivers, providing an auxiliary reading which enables the operator to accurately log any station, and again find that same station by resetting to the same readings on the main and auxiliary dials.

Rather than go through a long listing of the stations heard during the short-wave tests of this receiver it should suffice to say that even to one who has operated innumerable high-grade receivers on the short waves over a long period of years, this receiver leaves nothing within reason to be desired. The sensitivity and selectivity show up to the same excellent advantage that they do on the broadcast band, as described above. Short-wave broadcast stations have been heard on every continent except Africa (and this has never been heard in either of the test locations). All continents have been heard on amateur phone and also on c.w. It is realized that these accomplishments are not world beaters—but after all what more can be accomplished?

Perhaps a better way of judging the short-wave ability of the receiver is in the way it brings in the foreign s.w. stations. Here perhaps more than anywhere else, the excellent signal-to-noise ratio of the receiver is evident; and likewise the effectiveness of its a.v.c. system. At times when the foreign stations are suffering from fast fading the a.v.c. action is so perfect that the programs may still have high entertainment value. During the past two days, for instance, this condition existed, with the fading causing the tuning indicator eye to vary rapidly from a closed position to  $\frac{1}{4}$  open, indicating a large change in signal strength, yet the speaker output suffered substantially no variation—certainly not enough to in any way mar reception.

The inclusion of the ultra-short-wave range in an all-wave receiver is a relatively new thing but it will not be long before the owner of such a receiver will find it a distinct asset. Thus far there are only a few broadcast stations operating on these tiny waves but it is in this range that the finest quality broadcasting will take place in the future. These waves will provide spectacular DX down to below 10 meters at times when these bands "open up." Below about 8 meters reception is limited to a range of 100 miles except on rare occasions.

### U. S. W. Tests

During the RADIO NEWS tests the only ultra-short-wave broadcast station within range was W2XX, the Empire State Tower station. This was brought in, both in the New York City and the Fairfield, Connecticut, tests in a manner comparable in every way with local broadcast-band stations and with outstanding tone "quality." Numerous amateur phone stations were heard on both the 5- and 10-meter bands. The latter were not numerous as the 10-meter band is substantially dead during the Summer. The former were of course limited to the stations which were stable in frequency. The crystal-controlled stations and the more numerous m.o.p.a. stations on 5 meters, within range, were heard well. The frequency-modulated signals were, however, not understandable in most cases, due to the high selectivity of the receiver. Naturally no really comprehensive tests can be made in these u.h.f. ranges at this early date in their development but enough could be accomplished to indicate that when the broadcasting

## WE RECOMMEND THE DERBY PHONO-END TABLE—IT MAKES YOUR MASTERPIECE V A MODERN PHONOGRAPH AT WILL



Again may we repeat that the superb audio system in the MASTERPIECE V is ideally suited to phonographic reproduction. That statement puts it mildly. Let us say that we sincerely believe there is no finer audio reproduction possible. We build many receivers with turntables or record changers right in the cabinet, but we have had innumerable requests for a separate phonographic unit. To answer that demand we have designed such a unit and housed it in a fine piece of occasional furniture built by the same master craftsmen who make each MASTERPIECE Cabinet.

Pictured above is the new DERBY coffee end table, which contains a Webster phonograph motor and special Astatic high-fidelity crystal pickup such as broadcast stations use. Its size of only 27" long, 14½" wide, and 18" high, lets it be placed beside your armchair, ready for instant use—or you may use it as a bench to sit upon while tuning your MASTERPIECE V, if you prefer. Its simple, yet striking design, fine woods and hand finish, also enclose record storage shelves that will hold a good sized record library of one hundred records or more.

We cannot too strongly urge the adding of this inexpensive phono accessory to your MASTERPIECE V, for it has in store for you the convenience of precisely the kind of music you want whenever you want it, and the spine tingling thrill of actually bringing the fine music of the world into your home, literally and actually in person as far as your ear is concerned. Without it you get only half of what your MASTERPIECE V can give you. Until January 5th, 1937 only, you can have this attractive and invaluable \$60.00 phonotable for only \$15.00 if you order it with your MASTERPIECE V.

stations, which are now being licensed in greater numbers on these ranges, are in operation the receiver will give an excellent account of itself.

In summary, it may be said that this receiver should meet the most exacting requirements of even the most critical radio listener as it combines excellent electrical design with beauty of appearance, ease of operation and all-wave coverage.



### ST. LOUIS OWNER APPRECIATES FINE RECORD REPRODUCTION

I wonder how many owners of the Masterpiece V are missing wonderful entertainment by not playing records thru the marvelous amplifier and speaker? I have used a phono pick-up with the MIII and MIV but until I played the first record thru the MV, I had never really heard fine record reproduction.

I use an Astatic Crystal pick-up in connection with my turntable and I assure you that when one hears the Philadelphia Symphony Orchestra play the Blue Danube Waltz, Tales from Vienna Woods or Marche Militaire, it is just like being in the concert hall.

My friends have frequently brought their own Red Seal records to hear them played on my MASTERPIECE V and without exception they marvel at the full, natural, lifelike reproduction. They say they hear instruments and overtones they did not know were on the records. The playing of records is a welcome relief from the political talks and commercial plugs on our American Stations.

Foreign reception has been good during the past month. The Jap stations have been coming thru with good volume.

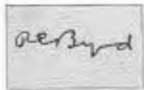
C. A. Pickett  
3131 Olive St., St. Louis, Mo.

NEW YORK CITY DEMONSTRATIONS AND SERVICE AT 63 CORTLAND STREET

# THE FACTS OF ADMIRAL BYRD'S USE OF MASTERPIECE RADIOS

Recent developments have seemed to indicate the justification for definitely establishing for the benefit of those readers who may not have followed the history of the now famous Byrd Antarctic Expedition II the exact part MASTERPIECE radios designed and built by McMurdo Silver played in Admiral Richard E. Byrd's success. As a matter of fact, record, these receivers were especially developed to provide certain new characteristics not then generally available, and which were definitely specified by Admiral Byrd's radio advisor.

This accompanying letter from Admiral Byrd, together with Chief Radio Operator



Boston Mass., May 10, 1936

On this anniversary of our return from the South Polar regions I want to express to you my deep and enduring appreciation of the assistance you rendered our second Antarctic Expedition which helped to make it possible for us to secure more than twenty branches of science and maps and take possession of thousands of square miles of new territory for the United States.

Attached to this sheet is an autographed piece of insulation from the wall of the Advance Meteorological Base the southernmost habitation ever occupied by man

in gratitude and friendship

Richard E. Byrd  
Commander, U.S.A.E. II.



Bailey's report of the performance of the MASTERPIECE IIs which were used by the expedition in the Antarctic tells a full and complete story impossible of contradiction or distortion. Of the five MASTERPIECE IIs actually furnished to the expedition, four went to the Antarctic, while one remained with Admiral Byrd's radio advisor, associated with a great Eastern university. On a visit this October your editor saw this engineer still happily operating this now over three year old MASTERPIECE, and with difficulty induced him to trade it back to your editor for a new MASTERPIECE V (which he has just wired us is a "marvel").

Though this particular receiver was the only one of Admiral Byrd's five MASTERPIECE IIs not to see strenuous service on the expedition, it will still take its place of honor in our studio radio collection as one of Admiral Byrd's MASTERPIECES, where we shall be glad to demonstrate it to you when you visit our laboratories.

In selecting a fine radio, the eloquent endorsement of enduring design found in this factual history of competent selection over all other radios made in America and Opera-

tor Bailey's performance report, guarantee you a heritage of radio receiver design that you can hardly afford to overlook—if you desire the finest radio reception money can buy or engineering skill can design.



Mr. McMurdo Silver,  
3366 North Paulina Street,  
Chicago, Illinois.

Dear Mr. Silver:

As Chief Operator of the Second Byrd Antarctic Expedition I feel that a word of praise and thanks is due you and your Corporation in regard to the satisfactory performance of the four MASTERPIECE II receivers which were the original all-wave receivers of the Expedition, one of which remained on the "Bear of Godland" and one on the "Seab Super", providing the entire expedition with regular home entertainment as well as a choice selection of foreign programs during the 50,000 or so miles voyage to and from the bottom of the world.

On the departure of our two vessels from the Bay of Whales for one long year, possibly two, contact with the outside world depended solely upon radio. The help of men who faced the cycle of antarctic seasons, one can readily realize to what extent the broadcasts from home and the outside world contributed to the contentment and morale of the ice party, how comforting and consoling, and in our little city, listening to the voices of our loved ones, thousands of miles away, as though separated only by a few feet.

The familiar clang of "Big Ben" from London, in addition to other shows program from Europe, were regular morning features, from noon until early evening we were naturally more interested in broadcasts from home of which the volume and clarity was no question. For evening entertainment one's choice was of programs from South America, New Zealand, Australia, and Japan as well as other distant countries.

The care and maintenance of these receivers was of little or no consequence. Little things like a few drops and rough handling by the transportation department and drifting snow on the trail between Little America and the ships are barely worth mentioning.

As these were the only all-wave broadcast receivers on the expedition I am sure the crew of both ships, while wintering in New Zealand, in addition to the ice party, join me in expressing appreciation to you and your Corporation for providing us with this means of world-wide broadcast entertainment.

Respectfully yours,  
Richard E. Byrd  
Chief Radio Operator,  
Byrd's Second Antarctic Expedition.

## McMURDO SILVER COMMENTS UPON AN "OPEN LETTER"

The publication by a larger maker of fine radios of an "open letter" to me about October 15th was quite a shock, not alone because of its inaccuracies but because I believed its writer was above such personalities. Here-with are facts, in "open letter" order.

For reasons which I fully believe justify calling the MASTERPIECE V "the world's only truly custom built radio", see page 8, September, 1936, SILVER TIMES. Every MASTERPIECE V is truly custom built to its future owners exact specifications and needs under my daily personal supervision, by skilled men trained by me over many years, in a special division devoted exclusively to such true custom-building of MASTERPIECE radios only, in the nearby plant of an R. C. A. Licensee.

Every MASTERPIECE radio built until April, 1934, was built in my laboratories. At that time R. C. A. sued McMurdo Silver, Inc., and restrained that corporation from so building, telling me of complaint to it by the "open letter" writer, who forgets his own appeal to me for help, speedily answered, when he was similarly sued in 1932.

The "open letter" so incompletely quotes a letter of mine, not even indicating deleted words, as to give a false impression. Complete printing of this letter would tell a totally different story.

The MASTERPIECE V, designed in and by my laboratories, where every single receiver is finally tested, adjusted and peaked for its individual owner, is available only from McMurdo Silver Corp. This firm itself builds a number of other items. The "open letter" statement that "you are not even a radio manufacturer" is untrue.

"Open letter" reference to "loyalty" to Howard Radio Co. is absurd. MASTERPIECE V radios until 30 days before the "open letter" only, were built by men trained by me and upon the Howard payroll in its plant, and bore no resemblance to Howard products.

The lack of clarity in giving weight of Super-Giant speaker as 70 (packed) pounds is admitted, regretted and was clarified 45 days before "open letter"—see page 2, September, 1936, SILVER TIMES.

"Open letter's" effort to compare only partial weights

of one Super-Giant to three smaller speakers is childish. "Open letter" writer's engineer could have told him three small speakers even of total weight equalling the Super-Giant weight, are necessarily far less efficient.

Admiral Byrd's use of MASTERPIECE II radio is factual history. See page 6, December, 1935, SILVER TIMES for Chief Operator Bailey's report of their performance in the Antarctic, and page 11, July, 1936, issue for Admiral Byrd's own letter to me. I have never denied that several amateur communication receivers were rejected, only, however, because of feared difficulty of servicing by limited personnel if ever needed. "Open letter" ignores Byrd request immediately thereafter to increase number of MASTERPIECE IIs from 2 to 5, which were supplied.

"Open letter" quotes my three stated reasons for their donation, admits only one and ignores fact that practically all Byrd Expedition equipment was donated. "Open letter" writer fails to mention his own visit to Byrd's radio adviser begging substitution of his radios for mine, which was refused and mine taken to Antarctic.

"Open letter" writer and RCA offered electronic volume expanders before MASTERPIECE V, but as accessory units, not as a perfected, built-in part of radio chassis, I believe.

Even most elementary "rule of thumb" says 30 watts put into 35% efficient Super-Giant speaker produces 10½ acoustic watts output. Same logic likewise says 210 watts put into usual 5% efficient speaker can produce only same 10½ acoustic watts output. I suggest "open letter" writer check this with his engineer—logic may not be successfully contradicted by mere statement of its opposite.

I believe the MASTERPIECE V is the first high fidelity radio to give true U-shaped selectivity in its two major selectivity choices. My measurements of competitive radios indicate this statement to be true.

"Open letter" cites statement of "two r. f. stages on all bands." I admit lack of clarity, even though this was

usually qualified. Facts are MASTERPIECE V uses 2 r. f. stages on four out of its five bands, or from 140 to 19,000 kc., and no r. f. amplifier on fifth band. "Open letter" writer uses only one r. f. stage, I believe, and omits entirely all but about 8% of the range covered by the MASTERPIECE V's fifth band of 19,000 to 70,000 kc.

The "lance dial" eliminates the parallax reading error customary to open face dials. "Open letter" writer's dial of 1927-32 vintage does not interest me, for I originated its style in 1931 or 1932 (See Silver-Marshall "Q" models of about five years ago.)

The beat oscillator of the MASTERPIECE V is controlled by a switch system controlling several other functions as well. I believe this is new.

Head-phone jacks are not usual to present day radios. I may therefore be criticized or pardoned for listing as "new" something seldom found, but technically old.

I recall none of "open letter" writer's advertising offering his radios for microphone operation. If I am in error, I shall be glad to be corrected by factual proof. I believe the MASTERPIECE IV and the MASTERPIECE V are the first modern radios to have enough audio amplification to give really satisfactory microphone operation.

Balance of "open letter" seems unworthy of comment.

It is not for me to suggest that the "open letter" writer might profitably devote his time to getting out a new radio. I seem to recall that he refused to develop a 1936 model radio to replace his basically May, 1935, model. Radio engineering has advanced since then, and I am too busy trying to help it to go forward to spare time for criticizing others. If one finds time for such efforts, criticism should be wholly factual and accurate, not incomplete and inaccurate.

I rest the excellence of the MASTERPIECE V, which "open letter" does not seem to question, on hundreds of not just satisfied, but enthusiastic owners, on the Short Wave Editor of RADIO NEWS' most annual test report and direct, unequivocal recommendation of the MASTERPIECE V found upon pages 349-377, December, 1936, issue, and a well known independent research union's unbiased test of merit.

# HOW THE WORLDS ONLY TRULY CUSTOM BUILT RADIO IS MADE



The first assembly task after your MASTERPIECE V is laid out and planned is the riveting of your name-placque to your chassis.

tion exactly as was General Ubico's. Naturally your MASTERPIECE V will differ considerably from General Ubico's, for your radio will probably not have to operate under the same conditions in Guatemala City. On the specification sheet forming a permanent part of your order you give us detailed information as to your location, local noise sources, local broadcast station power, antenna possibilities, and your performance desires. If these specifications do not include all of your desires and local conditions, you give additional information on a separate sheet of paper with a sketch of your antenna, and another of your living room with furniture roughly sketched in relation to where you want to place your MASTERPIECE V.



to our testing and adjustment laboratories where it is finally tested, adjusted for you and checked and rechecked by our engineers a total of seven times before its final air tests and personal approval by McMurdo Silver.

Every assembly, check, adjustment and inspection is initialed on your work ticket. As sensitivity, selectivity, fidelity, automatic volume control and noise measurements are made on your MASTERPIECE V, each is noted on this work ticket which comes to you with your radio. It tells the entire story of how your MASTERPIECE V was built and tested and adjusted—engineering data you get with no other radio at all for the reason that each MASTERPIECE is an individual engineering job.

The black and silver placque illustrated on this page with your name etched upon it to positively identify this MASTERPIECE V as having been custom-built expressly for you has so identified it from the tightening of the first screw to receipt of its last careful polish in our shipping department before it goes to you.

When you unpack and connect your own truly custom-built MASTERPIECE V, the whole world's entertainment opens up for you as you never believed possible before, and then, and only then, you realize that true individual custom-building really brings to you the superb radio reception you never dreamed would come true.

The MASTERPIECE V, we believe, stands alone as the world's only truly custom built radio. By this we mean that it is not a radio built merely in small quantities, to a standardized pattern, but that each and every one is built to the exact needs and specifications of its prospective owner. Each MASTERPIECE V is so built, specially and specifically for its prospective owner, from the very start of its layout and planning on through every one of its assembly steps, and through our final checking and testing to see that it perfectly measures up to that owner's own special specifications.

To the best of our knowledge the MASTERPIECE is the only radio you can obtain that will give you exactly the results and features you want and specify, and the design of which will be in strict accordance with the needs and character of your own particular location.

The illustrations on this page show exactly how the MASTERPIECE V ordered by General Jorge Ubico, President of the Republic of Guatemala, was built especially for him from the very ground up. When you order your MASTERPIECE V, it will be built specially and specifically for you and your loca-



Here is McMurdo Silver himself personally directing the assembly and wiring of General Ubico's MASTERPIECE V.

Your order received, this information is carefully analyzed by McMurdo Silver and his assistant engineers, and translated into engineering specifications for the building, testing and adjustment of your radio. This data is then placed upon your "Specification and Work Ticket," illustrated herewith for General Ubico's MASTERPIECE V, a copy of which goes to you with acknowledgment of your order, and another copy to our files.

The original ticket then goes to the planning laboratory, where your MASTERPIECE V is laid out and gotten ready for construction. Layout completed, this ticket with all necessary data goes to the construction shop, and accompanies your own special MASTERPIECE V through every step of assembly, guiding every operation to give you exactly the radio you have specified. Before any assembly work is ever begun on your radio by skilled craftsmen and engineers (some trained by Mr. Silver personally for many years past and each and every one doing nothing but truly custom-building MASTERPIECE V's) the name placque illustrated herewith and etched with your name is permanently riveted to your chassis. It is built as yours, for you and you only, from the first rivet to the final mechanical inspection.

Attached to your radio, your work ticket and name placque accompany it



The last step—McMurdo Silver OK's the MASTERPIECE V he has just finally approved in its final screen and sound room tests, and it's ready to go to you.

Invoice #5256-X	
SPECIFICATION AND WORK TICKET	Nº 329
CLIENT <u>General Jorge Ubico,</u>	DATE <u>10-5-36</u>
CITY AND STATE <u>President of Guatemala,</u>	
REQUIREMENTS:	<input type="checkbox"/> TONE <input type="checkbox"/> BROADCAST DX <input type="checkbox"/> SHORTWAVE DX PRINCIPAL USE <u>3/8 3-0</u>
SET BAND SENSITIVITY: <u>A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z</u>	SET SELECTIVITY TO: <u>9 KCs EUROPE, S.A., F. SPACING S.A.</u>
SET NOISE <u>Minimum - sens. &amp; Sel. maximum</u>	
SPECIAL FEATURES: (A)	
(B)	<u>has plenty antennas</u>
(C)	<u>150 yards from TOW &amp; TOSX Stations</u>
WATCH ESPECIALLY	<u>sen. &amp; sel. fidelity operate</u>
ASSEMBLY STARTED: <u>10-5-36</u>	COMPLETED: <u>11-7-36</u>
ASSEMBLY BY: <u>WIREMAN</u>	MECHANICAL TEST & INSPECTION: <u>MC</u>
PRELIMINARY TEST: <u>ALIGN. CM, P.F. ALIGN. C.V.</u>	
INSPECTION OKED: <u>FED</u>	AIR TESTED: <u>FED</u> DATE: <u>Nov 9 -</u>
SOUND AND SCREEN ROOM TEST:	SENSITIVITY <input checked="" type="checkbox"/> SELECTIVITY <input checked="" type="checkbox"/> CALIBRATION <input checked="" type="checkbox"/> MAGIC EYE <input checked="" type="checkbox"/> POWER OUTPUT <input checked="" type="checkbox"/> DISTORTION <input checked="" type="checkbox"/> HUM <input checked="" type="checkbox"/> SPEAKER <input checked="" type="checkbox"/> NOISE <input checked="" type="checkbox"/> MECHANICAL <input checked="" type="checkbox"/> INSPECTED & DEER: <u>MC</u> DATE: <u>11-9-36</u>
APPROVAL AND SPECIAL ADJUSTMENT CHECKED: <u>WIREMAN</u>	DATE: <u>Nov 10, 1936</u>
PACKING:	DOMESTIC <input type="checkbox"/> EXPORT <input checked="" type="checkbox"/> DATE: <u>Nov 17, 1936</u> PACKER: <u>McMurdo</u>

# THE FAMOUS VANDENBERG - ROOSEVELT DEBATE



This photo taken just as the October 31st crowd had begun to leave the International Amphitheatre gives no idea of the tremendous size of this enclosure, so large that stock shows, polo games and automobile shows are quite comfortably held in it. Seating 18,000 people, with two balconies practically empty, produced a condition of reverberation which only the most skilled installation and the finest sound equipment could satisfactorily cover.

Now that the presidential election is all settled to the satisfaction of an overwhelming majority of Americans and we can all settle back to our regular daily lives much the same as before, a peak behind the scenes reveals the part MASTERPIECE equipment played in this important campaign.

How many readers know how President Roosevelt's voice was injected into Senator Vandenberg's now famous speech? This was done by means of phonograph records, some old and none too clear, made at the time of the President's speeches four years ago. The almost insurmountable problem was to get clear speech from old phonograph rec-

afternoon test of a MASTERPIECE V in the World Broadcasting Studios by Engineer Rahmel, loaned to the C. O. P. by Massachusetts Institute of Technology, revealed that here was one radio perfect enough to lose no detail and no clarity. So through a MASTERPIECE V quickly custom-built for this task, the President's voice was injected from four year old recordings of it directly into Senator Vandenberg's broadcasting microphone. Here its flexible and separate bass and treble tone controls once more proved invaluable.

The MASTERPIECE V, with its superb tonal purity and great Super-Giant speaker made possible the setting of this new milestone in broadcasting history, for never before had this even been attempted, we are told.

## MASTERPIECE AMPLIFIERS DO BIG JOB

The photos on this page show Engineers Rahmel and Burke operating the pre-amplifiers at the immense 18,000 seat International Amphitheatre during a wind-up political rally on the evening of October 31st. One pre-amplifier fed the speaker's voice to the broadcast chains while the second simultaneously fed three MASTERPIECE V 30 watt power amplifiers and three Super-Giant speakers. Mr. Rahmel's letter tells the story of coverage so unbelievably clear and full in tone that everyone was utterly amazed—coverage made possible only by MASTERPIECE amplifiers and Super-Giant speakers in this immense amphitheatre, almost impossible to cover because of its reverberatory ceiling, walls and balconies, but so perfectly covered that the sound installation was re-engaged for the November Chicago Auto Show, and will probably be permanently installed to replace the original sound system which cost over seven times the price of the better MASTERPIECE system!



Engineer Rahmel at left is seen operating the broadcast microphone pre-amplifier, with engineer Burke at the right controlling the Masterpiece sound system through a similar mixer-pre-amplifier. These control positions were directly below and in front of the speakers rostrum. (Mr. Rahmel, regularly an instructor at Massachusetts Institute of Technology, is now engaged in consulting engineering with our staff in the development of similar but less expensive mixer-pre-amplifiers.)

ords broadcast on the air. This was a case of a "photograph of a photograph." The first reproduction wasn't so bad, but when it had to be reproduced again through broadcast stations and the radio receivers of the nation's homes, very serious loss of detail seemed inevitable. A search and tests had quickly proved that the tone of available radios was not clear enough to permit this "photographing of a photograph", without almost unavoidable loss of detail. A quick

**REPUBLICAN NATIONAL COMMITTEE**  
CHICAGO, ILLINOIS

Nov. 10th, 1936

JOHN HAMILTON  
Vice-President

Dear Mr. Hamilton:

Although this is a fairly substantial letter, I should like to express my appreciation for the public address equipment supplied the Committee on short notice for Colonel Lindbergh's final campaign speech of October 31st at the International Amphitheatre at the Chicago Stockyards.

I believe the installation represents something of an innovation in public address practice. In usual use of our standard broadcast remote pre-amplifiers to operate the power amplifiers and the eighteen inch Super-Giant loud speakers supplied to you.

One of your three type 3A power amplifiers was located with its associated loud speaker, and the line was bridged across the 200 ohm line feeding from the pre-amplifier. The fact that the power amplifiers had individual level controls, proved to be most advantageous in achieving optimum coverage.

I should like to report that the installation afforded entirely satisfactory performance, notwithstanding the fact that the amphitheatre has an unusually long reverberation time, there was no break of voice from the public address system in the broadcast playback.

Because of the arrangement of the two eighteen inch loud speakers, entirely satisfactory coverage was obtained in the remote corners of the hall—such as to the seats under the over-hanging balconies. At the conclusion of the program an individual, familiar with the acoustic difficulties of the amphitheatre expressed the opinion that our system was the best yet installed in the hall.

I should like to add that most certainly the tonal fidelity was indeed a surprise when compared with other systems.

My I wish thank you for your co-operation.

Very truly yours,  
H. G. P. Engineer.



Above is shown the extra large 2 1/2" band spread dial graduated every degree for its 200 degree scale. Available on your MASTERPIECE V at \$1.00 net extra, it will appeal to those desiring the utmost in short-wave dial readability.

## NEW SOUND UNITS WILL ENABLE YOUR MASTERPIECE V TO TALK TO 500,000 PEOPLE!



At the left is the new 1A three channel mixer-pre-amplifier of 65 db. gain, next the 2A volume expander tone control unit, and at right the 3A 32 watt power amplifier and the A, B and C power supply for the 1A and 2A units. All three (or the 1A and the MASTERPIECE V) make an unusually fine and flexible sound system, which may be enlarged in 32 watt steps with additional 3A power amplifiers whenever desired.

Out of the political campaign, and from consultation with Henry A. Rahmel and James McLean, of Massachusetts Institute of Technology, has come what we believe to be the simplest, most complete and by far the most flexible group of sound amplifying units ever to be made generally available. Complete radio, phonograph record and voice coverage of the 18,000 seat International Amphitheatre, illustrated upon page 6 which can be had by one MASTERPIECE V receiver, one extra 3A 32 watt power amplifier, one 1A mixer-pre-amplifier and the desired microphones and automatic phonograph, would cost not over \$430.00, and would literally "blow the roof off" if ever desired with an effective 420 undistorted electrical sound watts!

Of particular interest to MASTERPIECE V owners is the flexibility that these units confer upon their radios—the simple and easy ability to have when ever they may be desired more speakers, more power, and microphone or phonograph operation sufficient to cover a quarter or a half million people clearly, distinctly and without distortion.

For example, the 1A pre-amplifier will provide 65 db. voltage gain for two microphones, and allow them to be mixed exactly as desired, even with phonograph and radio music all at once! Fundamentally, the 1A mixer-pre-amplifier gives 65 db. gain for two "mikes," 23 db. gain for a phono pick-up or radio input, individual "mike" gain controls, and combination master and phono-radio gain (volume) control.

To do all this, it uses only two 6J7 and one 6N7 dual triode tubes—four separate tube functions—and in only one-eighth of a cubic foot in size! It measures only 8½" high, by 8" deep, by 4½" wide, with quickly removable cover shield. As a sensitive high gain input amplifier "flat" or non-discriminatory from 30 to 12,000 cycles, it is powered by an external supply unit, taking A, B and C power either from a 3A power amplifier, or from the new 4A power unit which operates at the throw of a switch from 110 volts A.C.—or a 6 volt storage battery—another Silver engineering feat for which one of many now pending patent applications has been filed. The 1A mixer-pre-amplifier connects to the 4A power unit by a single plugged cable, or similarly to a 3A power amplifier.

These two units, simply connected to a MASTERPIECE V, give a 32 watt sound system so far ahead of any comparable existing

equipment in power and tonal purity as to make a written comparison almost unbelievable.

The 2A expander-tone-control looks the same as the 1A unit, and is the same size. Intended for straight P. A. use without the MASTERPIECE V radio, it provides the latter's separate bass and treble tone controls permitting a "flat" frequency characteristic from 30 to 12,000 cycles, an 8 db. bass boost or 30 db. bass drop, and a 12 db. treble boost or 30 db. treble drop, all at the exact will of the operator manipulating its two tone control knobs. In addition, it will give 20 db. voltage gain if desired, and volume expansion for phonograph records or radio programs variable from no expansion at all to 30 db. expansion range, and so can make old classical music over into something ultra-modern and of the next century, if desired! It may derive A, B, and C power, along with the 1A unit, from the 4A A.C. or battery power supply or from a 3A power amplifier.

The 3A power amplifier is fundamentally the MASTERPIECE V power amplifier, supplied with one of its Super-Giant 18 inch, 44 pound and 35% efficient loud-speakers, but it is so flexible that it will drive two or four of these speakers if desired. It has a voltage gain of 46 db., and an undistorted power output of 32 watts at never over 2% total harmonic distortion. This unit having its own volume control, may be added to any MASTERPIECE V for coverage of another room, a garden, or ten thousand people indoors or outdoors, if desired, and its volume may be adjusted higher or lower than that of the radio if desired. It is the ideal answer to the "extra speaker" question, for it introduces none of the tone quality impairing impedance mis-match caused by casually adding on any extra old speaker that may be about, and will give the same superb tone quality that so pleases MASTERPIECE V owners and their friends.

The modern flexible, permanent or portable P. A. system would start with one 1A mixer-pre-amplifier, follow with a 2A expander-tone control unit, and terminate in one to four 3A amplifiers each with its Super-Giant speaker or two. If the 3A amplifiers were to be located close to their speakers, according to the dictates of sound engineering, then the 4A power unit would be needed to supply power for the 1A and 2A units.

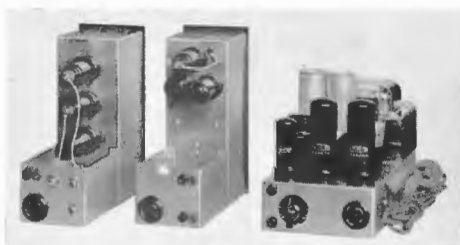
Flexible in the extreme, such a system can be expanded or contracted at almost a moment's notice, to do any P. A. job ever to be encountered from home entertainment to coverage of half a million people at one time and in one place! Attractively and durably metal cased combinations in any unit arrangement desired can be had for portable or permanent installation—at prices as low as common P. A. equipment.

For remote broadcast station pickup, as at restaurants, athletic and civic events and the like, one 1A mixer-pre-amplifier, one 5A volume level indicator with its 30, 50, 250 and 500 ohm (five separate and different terminations built in with balanced line transformer) and one 4A A.C. battery power unit is an ideal and economical answer—fundamentally the system used by the G.O.P. for all its broadcast and sound work.

Here then, is equipment that makes your MASTERPIECE V so flexible you can do

anything you ever desire with it sound-wise—talk thru it to half a million people if you ever want to.

May we add that the engineering skill that can produce such variety and excellence of precision radio and sound equipment can most assuredly build you the finest present-day radio in your MASTERPIECE V.



Views of the 1A, 2A and 3A sound units (left to right) with their cover shields removed. Note the clean, compact and simple designs.

### WHY SUCH POWER?

After reading the facts upon pages 6 and 7 you may wonder why we put so much power in the MASTERPIECE V—you may wonder why the 32 watts of MASTERPIECE V power output, which can cover an 18,000 seat amphitheatre, are necessary for a small home living room.

The answer is really very simple and lies in the vital need for reserve power. The power variation involved in ordinarily low to medium volume home radio entertainment may be on the order of a million times in symphonic music—the loudest passage may have a million times more power than the weakest passage. While this is an extreme condition it illustrates very clearly the need for really tremendous reserve power in any radio or sound reproducing system in order that loud crescendoes in music may be faithfully reproduced and not chopped or flattened off as in ordinary low power radios. There is absolutely no point in having fine tone quality alone if the full interpretation of fine music is impossible because of inadequate power or volume capabilities in one's radio receiver. Summed up this means that about 30 watts of audio power is desirable, not to produce wall shaking volume, but to take care of the frequent passages in music played at ordinary appreciably lower than 30 watts home entertainment average volume levels.

Additionally, this power contributes to long distance reception by increasing as it does very tremendously the sensitivity of the MASTERPIECE V to weak signals, which it will bring up to comfortable home entertainment volume with perfect ease where a less powerful radio would reproduce them so weakly as to be hardly heard, or more usually would loose in inaudibility distant stations of which the MASTERPIECE V will produce good clear home entertainment reception.

# "TO ASK THE MAN WHO OWNS ONE— IS TO BE THE MAN WHO OWNS ONE"

## SAYS L. J. LA SALLE, DEAN OF THE COLLEGE OF ENGINEERING OF LOUISIANA STATE UNIVERSITY:

I am enclosing a log showing the short wave stations that I have been able to get during the past five weeks. As you will notice, my dialing was principally in the evening and so I have not been able to get many stations that come in during the morning hours. (List of stations too long to reprint here, see Dec. FORUM—Ed.)

The thing which pleases me especially about the MASTERPIECE V, with the R9+ aerial is that once you have located a station on the vernier and noted the approximate volume and the tuning of the aerial, you can come back to it at any time that the station is on, without fail.

Some time soon I hope to be able to devote enough time over a twenty-four hour period to really see what I can get on this radio, and I shall then communicate with you again.—L. J. La Salle, Dean, College of Engineering, Louisiana State University, Baton Rouge, La.

## PRESIDENT OF SHORT WAVE CLUB ENTHUSIASTICALLY RECOMMENDS MASTERPIECE

I am enclosing a letter just received from a friend in radio, and believe I made a sale for you, not because you gave us one of your receivers as a donation (for 1938-39 International DX contest first prize.—Ed.) BUT because I speak of the MASTERPIECE V as a receiver any radio DX'er could speak of as a DX'er in the radio field, I have seen the results this MASTERPIECE V has done, and Mr. Robert Rossi of Philadelphia, Pa., has shown me some very interesting series which your receiver has brought in, and I also have heard your receiver, it ranks in a class by itself, I congratulate you as a GREAT MASTER in the radio field, Mr. Silver, and may the MASTERPIECE V some day be the ruler of the DX world.—Cordially yours, Oliver Amlic, President, International 6,000 to 12,500 Mile Broadcast—Short Wave Amateur Club.

## "GRAPE VINE" REPORTS

I understand, through the radio industry "grape-vine"



"The set is working wonderfully. We are delighted. Tonight I logged 10 U. S. Broadcast stations from coast to coast within 10 KC. Its selectivity is uncanny."  
—Carlos Leberman, 66 Earl Place, Buffalo, N. Y.

that you are going to town in a big way and this information, which I believe is true, makes me happy, for anyone that tries as hard as you to produce fine goods should be rewarded. Other proof, or at least a good indication, of your success is — "open letter". Absolutely all I learned from — letter was the fact that you must be taking some of the sales he thought belonged to him. Oh me for a chance to show up a — receiver.—Harvey M. Merchant, 727 Met. Life Building, Minneapolis, Minn.

## "ENTIRELY SATISFACTORY" IN LONDON

I am glad to report the safe arrival of the MASTERPIECE V which I have now had a fair opportunity of testing.

I wish to thank you for your care in packing: everything arriving in fine order. The instrument itself is entirely satisfactory, and its general performance is certainly far superior to any of the sets I have previously owned.

I especially commend its tonal fidelity which is remarkable and also its extraordinary sensitivity on the D and B bands.

I have heard tennis and golf matches in the United States, football games in Australia, oriental music from Bombay, amongst the vast number of world wide transmissions, which seem to be picked up with ease by this MASTERPIECE V.—W. C. Harper, c/o Harper's Houses Estate Office, Lonland Drive, Totteridge, N. 20, England.

## "SPEAKS FOR ITSELF"

Enclosed find our interesting "comments" returned as per your request. You have answered the "open letter" satisfactorily. Your radio also speaks for itself. It is all any man could wish.—Clement W. Lowe, 10 South Laurel Street, Bridgeton, New Jersey.

## "BEST RADIO . . . YET"

I am greatly pleased with my new set. The tone and



In far-away Blonay at Vevey, Switzerland, Georges Konrad reports that Mr. G. Moor's MASTERPIECE V is bringing in the world. As he tunes it, the snow-capped head of Les Dents du Reidi, at the head of Lake Lemon, can be seen thru the window above the MASTERPIECE V.

performance is excellent. The MASTERPIECE V is the best radio I have seen or heard yet. Thanking you for your set and interest in my particular problem, I am—Major C. N. Muldrow, U. S. Marine Corps, Navy Yard, Portsmouth, N. H.

## "MADE DEALERS EAT THEIR WORDS"

First: I wish to apologize for not giving you a report on my set earlier, but it has just been impossible to do so. I am using a 10 foot piece of wire hanging out in bringing in England, Germany, and Holland. The tone quality is really remarkable and has forced a number of my skeptical friends to admit that everything you said about it, and more, was true.

Let me again add that I am "tickled pink" with the set and have succeeded in making two friends of mine who are radio dealers eat their words when they said "it can't be done."—Yours very truly, Dr. Nathan G. Gaston, 309 Bernhardt Bldg., Monroe, La.

## "CANNOT BE COMPARED"

The two MASTERPIECE V's I ordered I have now received and noted them in . . . good condition. . . they are marvelous in use. . . richness and life of tone my old receiver, though the same is in good condition today, cannot be compared with the MASTERPIECE V in receiving and tone quality.—E. von Denffer, Valkarikatu 3, Helsinki, Finland.

## GETS EVERYTHING BUT COSMIC RAYS

The line filter has been able to eliminate the "devil's growl" so now you had better send me an R9+ antenna to reach out for some "cosmic harmony!" The set seems to be able to reach out and get almost anything wanted with my old antenna, so no doubt with a new R9+ I will be able to bring in a symphony of cosmic rays.—Very truly yours, C. W. Schwartz, 149 Mamaroneck Road, White Plains, N. Y.

## GETS AUSTRALIA WITH GROUND ONLY— NO ANTENNA

I would like to say before writing finally a resume of my opinion that I am increasingly pleased and struck with the No. V in all respect. Quality on Short-wave is quite astonishingly even Sydney coming sometimes with no distortion, whereas the more powerful U.S.A. transmissions are indistinguishable from Europeans, and as yet I am using only my 30 ft. ground wire as short aerial. Your claims as to this receiver are well within the mark and I wish for no "freak" set with 50 or so tubes, and 10 loud speakers! Your No. V has aroused already very much interest and it is the only one.—Mr. G. Moor, Blonay, Vevey, Switzerland.

## "GRANDEST RADIO EVER OWNED"

As you will remember, I have now had my MASTERPIECE V radio for somewhat over a month, and I am forced to admit it is the grandest radio I have ever owned.—(Signed) A. L. Ross, Southern Kraft Corp., Bastrop, Louisiana.

## "MOST MARVELOUS I EVER HEARD"

Received shipment of the MASTERPIECE V last week, but was only able to play same for one day as I was called to California on business. Returning and installing the speaker in the cabinet and listening to the results I am willing to agree that it is the most marvelous receiver that I have ever had the pleasure of hearing. It truly is a MASTERPIECE in every word.

The short-waves pour in all day and night, and I was

very much surprised to hear so many short-wave stations on the "Apex band" as you stated in the installation book which accompanied the receiver that this band was for short-distance reception only. I am out in the desert miles from nowhere and many more miles from the short-wave station in the east, nevertheless these stations come with good volume on the "Apex band." All the other hands are hot with stations and the broadcast band is the best on any radio disregarding all prices.

I congratulate you Mr. Silver, on building and putting on the market such a marvelous instrument, and I believe that you will have many more sales in this district after it becomes known that there is such a receiver on the market.—Walter Theobald, Box 43, Carlin, Nevada.

## "QUITE A PERFECT SET"

In spite of instruction book not available, I have my MASTERPIECE V installed in the console. With my MASTERPIECE owner's experience, I had no difficulty in finding how each control operates. Frankly when your advance announcement reached me I did not believe there will be one sensible improvement applied to it, because MASTERPIECE IV was already a good receiver, if not perfect. But upon hearing MASTERPIECE V I must confess that I was wrong, MASTERPIECE V has really many important improvements applied and it is quite a perfect set.

**SENSITIVITY.** In the first night of installation, I had no least difficulty in tuning in every European Capitol station, with as clear and loud programs as local ones without any difference.

**FIDELITY AND TONE.** The two tone circuits are marvelous. With volume expander on, every tone obtained, it is miraculous indeed. With regards to quietness, there is none to challenge, one in an adjacent room does believe there are people speaking in another room and does not believe it was radio receiver speaking.

Although being a MASTERPIECE (having purchased from I to V) admirer, and in spite of my promise, I have not sent yet to you my photo, but in a few days I will certainly do so in taking a photo with all my MASTERPIECES round me.—Joseph Y. C. Hsui, Societe Francaise de Navigation de Tangkou, Tangkou, China.



The attractive and very unusual den of Roland M. Mayer of Redlands, Cal., yields its focal point to the MASTERPIECE V, which brings the entire U.S.A., Europe, South America, Australia, Asia, and we believe Africa too, to sunny California.

## "JUNKED \$725.00 RADIO TO INSTALL MASTERPIECE V"

When I received your literature concerning the MASTERPIECE V, I wondered if you had ever heard of the Federal mail frauds statute. But I attended the recent New York Radio Exposition. I saw a MASTERPIECE V displayed and next day heard it at 63 Cortland St. I bought one, junking the chassis of a \$725.00 radio I had bought a year before and installing the MASTERPIECE V in that cabinet. I have now owned a MASTERPIECE V long enough to find that your claims for the set were anything but extravagant. I owe you an apology for the mail frauds thought.

For your information the set I replaced with the MASTERPIECE V was a —. Had it been a —, I probably would have replaced it as readily.—Wendell Hamner, 860 West 181st Street, New York City.

## "WOULD SPOIL ONE FOR ANY OTHER SET"

I received the MASTERPIECE V in perfect condition. . . The most beautiful instrument I've ever seen anywhere at any price, and everyone who has seen it says the same. The tone is so real and when I tried out my year old 16 tube—which is in perfect condition, beside this MASTERPIECE V, you should have heard how "cheesy" the other set was, and I thought it was pretty good too—until I heard this MASTERPIECE V. One certain thing is it surely would spoil one for any other set.

I'm not advertising on paper here for you, or anything of the sort, but I've always been forward with any little complaint and now I want to be just as forward in telling you you have the most perfect set I've ever heard.

I received a very "open letter" from one of your competitors.—. Undoubtedly you have a copy.

As for his claims, I've been interested in his set for sometime and while he has a beautiful radio, I bought yours—and I'm not sorry, now I've heard them both.

So please accept my thanks for the enjoyment I'm receiving.—L. L. Groves, 28 Bay State Ave., Somerville, Mass.