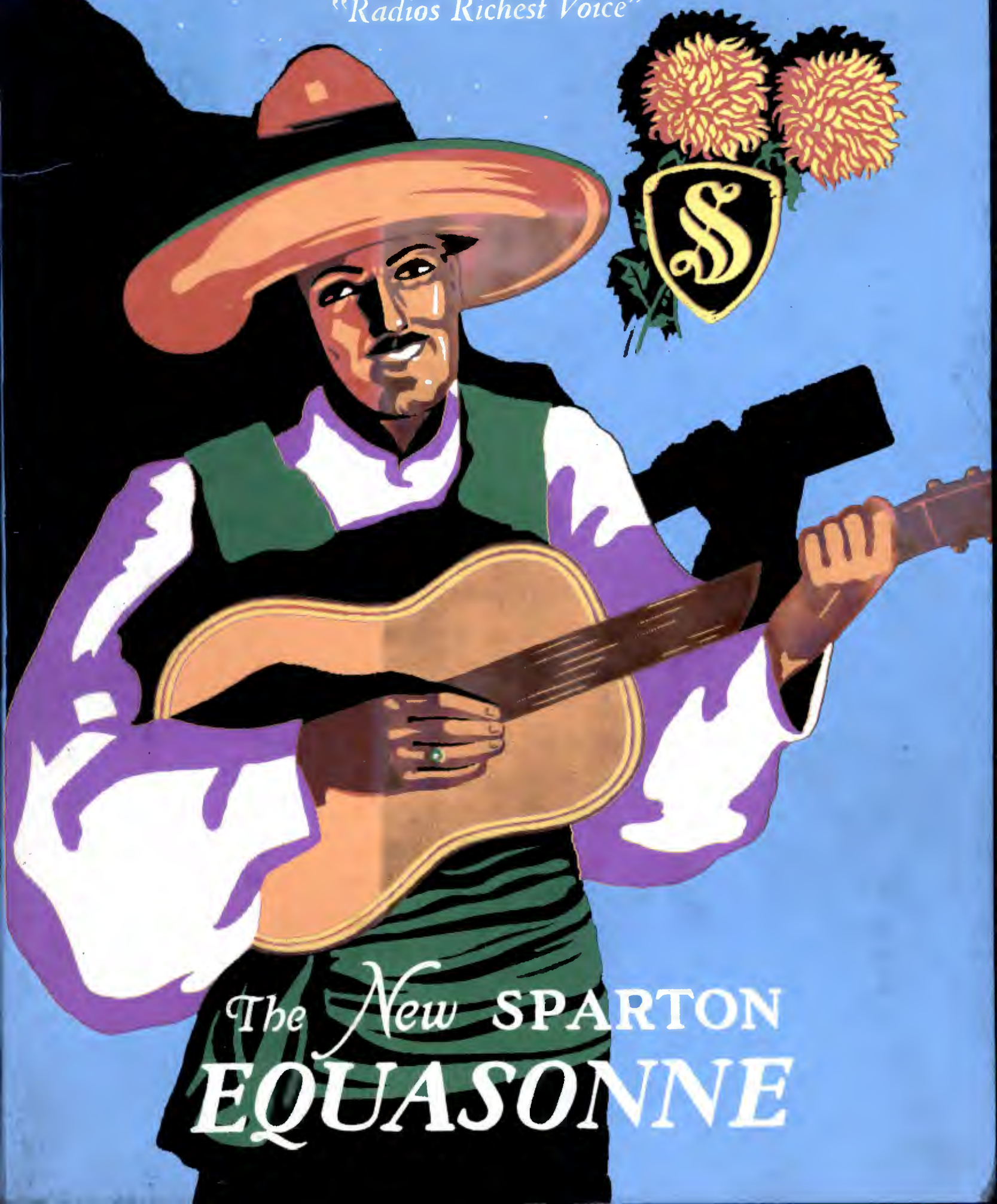


"Radios Richest Voice"



The New SPARTON
EQUASONNE

“Face to Face”
with
Sparton’s
Greatest
Year

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Amazing Things Have Happened in the Radio Industry

*F*ROM a \$5,000,000 total sales volume in 1922, sales have bounded upward to \$100,000,000 in 1924—\$200,000,000 in 1926 and \$306,000,000 in 1928.

There is no saturation point in sight as remarkable as this progress has been. Sales possibilities are still way above actual sales. Newly wired homes alone are constantly creating a new market of stupendous size, to say nothing of the yet untouched market of 19 million homes that have never yet had a radio of any kind. This coupled with the enormous replacement opportunities presents a field of unlimited business for the Dealers who are real merchandisers and who carefully choose the dependable lines to sell. The radio business today, however, demands careful analysis. The point has been passed where just any radio will do.

The sharply significant thing that has happened during the remarkable history of radio manufacturing is that out of the hundreds of manufacturers that started over 80% of the entire sales volume went to only five manufacturers in 1928. Statisticians

predict that more than 90% of all radio sales will be enjoyed this season by the six leading manufacturers who are building quality radio and are real merchandisers. The first big free for all race in radio building has now settled down to a few dependable manufacturers who have conscientiously built upon a solid foundation of quality and service and sound merchandising.

These facts are of enormous importance to the dealer who wishes to stay in the business with a real profit at the end of the year. The product and—*the manufacturer behind the product* becomes a matter of prime importance to the dealer who would be successful.

How Sparton fits in this picture can be readily seen by their enormous but steady dependable growth since entering the radio field. Sparton's great factories are now building virtually 100% of their entire product including cabinets, speakers and everything that goes into the set with the exception of wire and raw material. This means that Sparton quality is absolutely controlled within its own factories.

The great financial strength of The Sparks-Withington Co. insures the very best of raw materials and a broad nationwide merchandising and advertising plan that no dealer can afford to overlook.



CAPTAIN WM. SPARKS
Founder and President of The Sparks-Withington Co.

*Sparton Manufacturing Facilities
Increased 200% Since 1928*



The Most Modern Manufacturing Methods



100% Sparton Controlled



Sparton Built from Coils to Cabinets



Tomorrow's Radio — Today

*S*PARTON Radio engineering has always been outstanding in the industry.

The Sparks-Withington Company was the first to bring out on a large production basis the successful all electric A. C. operated radio instrument.

Sparton followed this quickly with the amazing New Equasonne Circuit entirely new and different in principle that brought Sparton universal recognition as "*Radio's Richest Voice*".

Again Sparton is out in front with remarkable refinements that have this year brought to the radio world—

"Face to Face Realism"



MODEL 931
(CLOSED)



MODEL 931
(OPEN)



MODEL 301
(CLOSED)



MODEL 301
(OPEN)



MODEL 110
(DE LUXE)



MODEL 89A



MODEL 930



MODEL 49
(BATTERY OPERATED)

Sparton Merchandising



Sparton realizes and faces its merchandising responsibility. Frequent dealer conventions and sales meetings are held at factory and in the various territories at which time valuable sales and service information is presented to dealers in a most complete manner.



Sparton Endorsed by World Famous Musicians



1. *Moissaye Boguslawski, celebrated concert pianist of Chicago, Ill.*
2. *Edward Benedict Kimball, radio organist WBBM—WJBT.*
3. *Sibley G. Pease, resident organist Elks Temple. Organist and Choirmaster St. James Episcopal Church, Los Angeles, Cal.*
4. *Esther Fricke, organist Angelus Temple and KSFG, Los Angeles, Cal.*

THE truly marvelous Sparton tone has been widely acclaimed by musical experts as the most natural reproduction of the fine overtones of music as well as the fundamentals so quickly detected and appreciated by the trained musical artists.

Both voice and instrumentals come in with all the warmth and charm of actual human presence of the artists themselves. The entertainers become living, captivating personalities.

N. Y. ADDRESS
1585 BROADWAY

TELEPHONE
CHICKERING 4429

CABLE ADDRESS
"SPECORCH" NEW YORK



Paul Specht

and his Orchestra

COLUMBIA
RECORDS

March
Thirteenth
1929

Sparks Withington Company
Jackson, Michigan

Gentlemen:

Being a real radio enthusiast and one of the pioneer broadcasters of this country, and, having been presented with various radio sets which I have used, I feel as though I should tell you frankly, that I believe the new Sparton Equasonne Radio set which I just purchased, IS the ONE RADIO SET that will ULTIMATELY be recognized as the "KING OF RADIO". As a musician with a "critical microphone ear", I find myself amazed with the rich, full, super quality of tone which the Sparton produces, and believe me, I'll never be satisfied again to "listen in" on any other than Sparton Radio Sets, because your engineers have produced something INCOMPARABLE in radio history to date.

Thanking you for the service and pleasure you have brought me, I remain

ResPECTfully yours,

Paul Specht

PLS:M



*ResPECTfully yours,
Paul Specht*

Sparton State to State Airplane Tour



A STATE TO STATE air tour has been started using the big Stinson-Detroiter cabin plane owned by The Sparks-Withington Co.

During this tour which is also sponsored by the Chambers of Commerce in the various Capital cities, it is planned to transport from Jackson to each State Capital a new Sparton Radio Model 301 which will be presented to the Governor of each State.

This presents a wonderful opportunity for Sparton dealers to obtain valuable publicity at the time of each presentation.

Every Sparton dealer will be notified as to the exact date the Sparton ship will visit his Capital and a large window poster will be given each dealer so that he can tie up his store with this event.



"Spartons in a Hurry"

THE upper picture on opposite page shows a recent delivery made by one of our live Sparton distributors, the M. & M. Company of Youngstown, Ohio, to their dealer The Warner Company of Warren, Ohio.

In the lower picture is seen a Bellanca plane in the act of delivering a Sparton 930 model to Mr. Wilson, another wide awake Sparton dealer at Wilmington, Del.

Sparton Dealers are Prosperous Dealers

*I*t is a significant fact that every Sparton dealer almost without exception has enjoyed a profit many times greater than on any other line he may have previously handled before joining the big Sparton family.

This is by no means an accident or for any reason of greater discounts. The answer is first unfaltering quality of product—absence of profit eating service costs—and above all a clean merchandising factory policy that keeps the line out of undesirable merchants' hands. Also a careful planning of new model releases that protects the dealer from obsolete stocks and factory promotional activity that secures a constant healthy turnover.



Still Greater National Advertising



*Sparton Advertising Plans, Sales Promotion
Methods and Materials are
Outstanding in Helpfulness to Sparton Dealers*

- BULLETIN SERVICE
- SALES PROMOTION MANUAL
- NEWSPAPER MATS
- 50/50 ADVERTISING
- BILLBOARD POSTERS
- AD REPRINTS
- ELECTROS
- WINDOW TRIMS
- MOVIE SLIDES
- FORM LETTERS
- DIRECT MAIL PIECES
- ELECTRIC SIGNS
- BANNERS
- COUNTER PAMPHLETS

Facts Every Salesman Should Know

THE SPARTON *EQUASONNE* receivers are especially interesting for they use two devices—a band pass selector in combination with an untuned radio frequency amplifier—which are to be found in practically no other radio receivers.

A Sparton *EQUASONNE* receiver contains three separate sections, a "selector unit" and "amplifier unit" and the "power converter". The selector unit selects the signals from the station to which the user desires to listen, the amplifier unit amplifies and detects these signals and the power converter amplifies the detected signal sufficiently so that satisfactory volume can be obtained from a loud speaker connected to the output of the power converter. This, briefly, is the way this set works. It differs from ordinary tuned r. f. receivers in the following ways:

In a tuned r. f. set the incoming signals are amplified by the r. f. amplifier tubes and the selecting is done by the r. f. transformers connected between the successive r. f. amplifier tubes. The desired signal is therefore selected *as it passes through the r. f. amplifying system*. In the Sparton circuit all the selecting is done *at one point* and then *after* the desired signal is completely separated from all the undesired signals it passes to the r. f. amplifier unit to be amplified.

The r. f. system in an ordinary tuned r. f. set will fail to amplify unless all the stages are tuned to the desired signal. In the Sparton set it is not necessary to tune the r. f. amplifier, for without adjustment it is capable of amplifying any signals (in the broadcast band) that may be impressed on its input. In the Sparton sets we simply tune the selector to the desired signal and then the amplifier unit automatically does its work of amplifying the particular signal we have selected.

The last tube in the "amplifier unit" is the detector. It is of the plate detection type and it is supplied with sufficient plate and grid voltage so that it may supply, without overloading, 20 volts or more at audio frequency to the transformer and in its plate circuit. The a. f. output from the detector passes into the primary of the audio transformer T and the secondary of this transformer feeds the grid circuit of the power tubes which in this particular model are similar to the new type 245. This Sparton receiver therefore contains only one stage of audio frequency amplification in contrast with the two stages ordinarily used in broadcast receivers. It is possible to use one stage instead of two because the r. f. amplifier unit has sufficient gain and the detector has sufficient load capacity so that a single transformer is all that is required to step up the a. f. voltage to a value sufficient to operate in push-pull type 250 tubes to their maximum output in the larger models.

The plate circuit of the push-pull tubes contains an output transformer and the secondary of this transformer feeds the moving coil of the dynamic loud speaker that is used in this particular model. The field coil of the dynamic speaker is used as one part of the potential divider which reduces the voltage to the proper level for the r. f. tubes.

The preceding paragraphs have described in a general way the operation of these excellent receivers. Let us now examine in more detail the operation of the selector

and amplifier units.

The selector unit consists of four tuned circuits. If the connections to these tuned circuits are traced it will be noted that a small coil is connected in series with two of the tuned circuits. Now it is a characteristic of two circuits each tuned to exactly the same frequency that when they are coupled together by any means (as for example a small coil L5) that the response curve of the two circuits together is quite different from either circuit alone. Either circuit alone would give an ordinary resonance curve—a sharply peaked curve that cuts sidebands which results in the loss of some of the higher audio frequencies. Both circuits together however, produce a curve with a flat top and very steep sides. The flat top effect prevents a side band cutting and the steep sides give excellent selectivity. This condition exists not only between the two circuits which are conductively coupled but also between circuits one and two and between three and four which are indirectly coupled. Thus obtaining, to the highest possible degree the beneficial effects of this so called band-pass tuning. Such a characteristic—flat top and steep sides—only results, however, when the circuits are accurately tuned to the same frequency. With these circuits it is therefore quite important that the coils be carefully matched and the tuned condenser accurately ganged.

The entire selector unit is contained in a single metal box and if any part of it goes defective it can be removed from the set and replaced by another selector unit, the job of removing the defective unit and substituting a good unit taking not more than five minutes.

The amplifier unit contains five r. f. amplifier tubes and a detector and the overall gain of the amplifier is considerably more than that of many ordinary tuned r. f. receivers. The circuit of the amplifier is very unusual and no details regarding its operation are available at this time. The amplifier unit like the selector unit can, if defective, be removed from the set and replaced by another amplifier unit.

The fact that any of the three sections of the set may be quickly removed and replaced by a good unit makes the servicing of the set a very simple matter. When a dealer gets a call to service a Sparton receiver, the service man sent to the job merely needs to determine which of the three units is defective. He then replaces it with a good unit and takes the defective unit back to the store to repair it at the first opportunity. By means of a simple series of tests it is possible to quickly determine which unit is defective. For example, to determine if the selector unit is defective it is simply necessary to remove the antenna from its usual location and connect it instead to "A", the connection between the selector and the amplifier units. With the antenna in this position, signals from all the local broadcasting stations will be heard in a jumble provided the amplifier and the power converter are in good condition. If no signals can be heard with the antenna connected to its proper position ahead of the selector the service man has a definite indication that the selector is at fault. He then proceeds to remove it and replace it with a good unit. Equally rapid tests determine whether or not trouble exists in either of the other two units. In this way the customer is not deprived of the use of his set while the unit is being repaired.

THE entire Sparton personnel and over five thousand workers are constantly striving for even greater progress and refinement, and pledge themselves to earn and secure for Sparton universal recognition as —

*"The greatest Radio
the world has ever
known at any price"*

HARRY G. SPARKS AND HIS SALES CREW.



