

Jan. 24th, 1930.

CHASSIS DESIGN COMMITTEE EXECUTIVE SESSION.

CHASSIS DESIGN.

Dimension of Chassis - location of openings for filter choke and By pass condensers.

Mr. Edison recommended increase in the depth of the chassis by $\frac{1}{4}$ inch to give more leeway for location of parts and thereby avoid interference. He also suggested relocation of the openings for chokes and By-pass condensers. This to give a little more width to the chassis stock between chokes and condensers and thus strenghten the chassis at these points and make assembly of the parts easier. When making changes in chassis dimensions the R-5-cabinet should be kept in mind as the chassis must fit into a cabinet having dimensions of the R-5.

THICKNESS OF CHASSIS METAL PLATES

After considering different thicknesses of sheet metal for chassis construction .062 - 16 gauge sheets were thought heavy enough to meet all conditions.

A chassis made of .062 sheet metal will be ready for inspection at the next meeting. Mr. Harris will have this chassis made up.

Before making final decision on the location of openings in the chassis and thickness of the metal, Mr. Edison requested condensers, chokes and other parts it is possible to assembly to the chassis - be assembled so any interference or inaccessibility in assembly can be noted and corrected.

STRANDED WIRE

Approval was given to the use of stranded wire 1/64" rubber wall cotton covered and paraffin coated.

Samples will be brought in at the next meeting. Mr. Jacobs will supply the wire samples.

DIAL MECHANISM

Mr. Edison stated, Mr. Eaton had a dial mechanism in process and he thought it would be ready by the next meeting. This dial would have two windows at top one above the other. This tentative design will be simple and accessible.

TUNING FEATURES

Mr. Edison stated further tests would be made of various tuning features in an effort to perfect a satisfactory tuning system.

CABINET CONSTRUCTION AND ACOUSTICS

Mr. Harris stated he had made a number of tests using different speakers. He was unable to make any definite statements on acoustics until different speakers could be obtained. He suggested this be done immediately so tests could be made.

SPEAKERS

Mr. Walsh suggested Magnavox - Utah, Jensen and Symington speakers be obtained so soon as possible and a test made of same. Mr. Walsh stated it was desirable to design the chassis for two or three speakers so one or more speakers of different makes could be used in case of necessity, should a speaker manufacturer go out of business.

Mr. Holley stated samples of various speakers are due in a few days. These speakers will be put through tests.

BURNED OUT SOCKETS.

Mr. McGee said there was need for a better 280 socket as about 500 sockets had burned out.

Mr. Harris said the Eby sockets had been changed in the contacts which change would overcome burning out.

ESCUTCHEON PLATE

Mr. Holley said the design of the escutcheon plate should be given more time and an effort made to arrive at a better design.

Mr. Harris stated he was working on the dial and Mr. Richards on the panel.

Mr. Holly in conjunction with Mr. Harris and Mr. Richards will obtain specifications that will enable him to obtain costs on an escutcheon plate of a suitable design.

VENTILATION OPENINGS IN TUBE SHIELD

Mr. Hirsch called attention to lack of sufficient ventilation in tube shields and suggested a test be made to determine the ventilation needed.

Mr. Harris and Mr. Jacobs will conduct this test.

Mr. Clark suggested the use of perforated metal in shields.

Individual shield cans were favored and approved.

COMPENSATING CONDENSERS

Mr. McGee recommended the use of pure bakelite in compensating condensers to avoid changes due to expansion caused by moisture.

Mr. Jacobs is to be consulted on this and in conjunction with Mr. McGee will report at the next meeting.

VARIABLE CONDENSERS

Mr. Jacobs and Mr. Hardy will report on legal features at the next meeting.

PLANT LAYOUT

Reconsideration of the cost of Plant Layout in building 24 was recommended by Mr. Walsh. The cost \$75,000 being quite heavy, it could probably be cut down.

Mr. Walsh presented his views on features he thought desirable in new chassis design. Among the things he mentioned were the following.

Automatic Volume control, a limited number of tubes, a chassis in which two or more speakers of different makes could be used, Investigation of the Pentode tube, the use of which may reduce the number of tubes in Edison Radios.

Mr. Walsh said the above mentioned features and other new developments that are represented in Radio receivers of other manufactures and which are coming forward from time to time are essential to a successful sales campaign.

Those present at the meeting were Messrs: Walsh, Edison, McGee, Harris, Olson, Clark, Holley, Burns, Hirsch, Manchester, McCarthey, Arrowsmith, Berggren, Cosden and Schweitzer.

E. Trautwein, Sec'y.

January 24, 1930.

COMMITTEE MEETING ON RADIO CHASSIS DESIGN

THE MINUTES OF THE PREVIOUS MEETING WERE APPROVED AS ISSUED.

SOLDER LUGS

Mr. Neilson presented two terminals with solder lugs for approval.
The type of lugs shown were approved.

Mr. Harris will have drawings made and specifications drawn.

Lugs for sockets, coils and compensating condensers will receive the attention of the solder lug committee. A report will be rendered next meeting.

Solder lug committee:-

Messrs:	Harris	Neilson
	Manchester	Berggren
	McGee	Holle

MOLDED SPOOLS FOR R. F. COILS

Owing to increase in cost of molded spools over wooden spools, it was decided to continue the use of wooden spools. This action was taken after the committee had made its report.

Committee on Cost of Molded spools.

Messrs:	Jacobs	Harris
	Holly	Haker

DIAL PANELS

The committee investigating dial panel design could make no report at the Jan. 24th meeting. There being no approved dial mechanism, decision on design of dial panels will be held over until the next meeting at which time a dial mechanism will be shown for inspection and approval.

A dial panel that could be built into the cabinet was advocated by the dial panel committee.

Mr. Manchester stated the dial panel in last years Radio caused a loss of about \$15,000, owing to the need of repairing panels damaged in assembly operations and scrapped on account of defects. A panel built into the cabinet would save much of this waste material and money.

Committee on Dial Panel Design

Messrs:	Manchester	Richards
	McGee	Harris
	Jacobs	Clarke

CRADLE DESIGN

The cradle design Committee reported the cradle now used in supporting Radio sets in shocks, was satisfactory in design, and

recommended the use of this cradle be continued.

Cradle Design Committee
Messrs: McGee, Richards, Clarke

COMMITTEE ON COSTS

- Mr. Manchester speaking for the costs committee stated lack of drawings of parts and assemblies delayed cost estimates. He stated however that costs were being established on certain parts upon which approval had been given.
- Mr. Harris stated drawings were being made as rapidly as possible after approval had been given on certain parts and assemblies.
- Mr. Theodore Edison stated he had appointed Mr. Cosden to establishing tentative cost figure on parts for the new design chassis using last years parts lists as a working basis. So fast as cost figures on New Chassis parts were obtained definite costs figures could be established. As many of the new parts will be similar to last years parts. Mr. Cosden can establish tentative figures on such parts.

Therefore Mr. Cosden becomes a member of the Cost Committee.
Cost Committee:-

Messrs: Manchester	Harris
Holley	Haker
Jacobs	Cosden

CHASSIS FINISH

Mr. Harris submitted a report on Chassis finish giving costs and process used in obtaining the Copper Bronze finish which was favorably received by the Chassis Committee.

A number of samples parkerized and finished in one and two coats of Copper bronze lacquer were presented for inspection.

While approval was given for the use of Copper bronze lacquer as the finish for the new chassis, final approval was withheld to arrive at a more substantial finish that would not mar so readily. Addition of more lacquer to the copper bronze would probably overcome this objection.

Mr. Harris will again present for final approval at the next meeting the sample plate which Mr. Walsh and Mr. Edison approved for coating and color.

The sample is to have a more durable finish not so easily marred as when first presented.

Committee on Finish of Chassis:-

Messrs: Harris	McGee
Jacobs	Berggren
Manchester	Richards

January 24th, 1930.

- 3 -

CONVEYOR JACK AND BENCH

Mr. Manchester commented on the size and weight of the Jack as shown at the meeting. The size of the Jack having been increased which with the weight of Chassis added would make it heavy for girls to handle in assembly operations.

Before giving his approval he requested a Chassis and Jack be shown at the next meeting so a better opinion could be formed on the practical application of the Jack in assembly operations.

Those present at the meeting were

Messrs: A. L. Walsh	Clarke
T. Edison	Berggren
Manchester	Nielson
McGee	Haker
Burns	Kurtz
Harris	Cosden
Olson	Schweitzer
Arrowsmith	Hirsch
Rhaines	Sommer
McCarthy	
Holley	
Burns	
Holle	

Next meeting Friday Jan. 31st, 1:30 P.M..

E. Trautwein, Sec'y.

January 31, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Minutes of January 24th meeting with corrections in paragraphs 1 and 3 were approved as issued.

Correction: Paragraph 1. The increase in the dimensions of the depth of the chassis, stands corrected to $\frac{3}{4}$ of one inch, instead of $\frac{1}{4}$ of one inch.

Correction: Paragraph 3. The approval for the use of stranded wire is subject to the final approval of Mr. Jacobs, who will recommend the wire specifications in accordance with Engineering requirements.

1. SOLDER LUGS

Mr. Harris has had drawings made and specifications drawn of soldering lugs approved at the last meeting.

Mr. Jacobs stated that he thought there would be no difficulty in obtaining sockets and coils having soldering lugs approved by us, or lugs of a design that would meet our approval.

He stated, however, that he had been unable to induce the Camden Condenser Company to comply with our request that our approved soldering lug design be made part of the assembly of their variable condenser compensator. Mr. Jacobs will request them to reconsider the matter.

Mr. Eaker asked whether we were dependent upon one condenser manufacturer for our supply.

Mr. Jacobs replied that he was looking into the matter and was at that time in touch with another condenser manufacturer with a view to having more than one source of supply in case of emergency.

Mr. Holley will obtain costs on new soldering lugs and will make a report at the next meeting.

Soldering Lug Committee

Messrs: Harris, Manchester, Jacobs, McGee, Nielson, Bergren and Holle.

2. DIAL PANEL

A definite decision on the design of the panel is awaiting completion and final approval of the dial mechanism.

Dial Panel Design Committee

Messrs: Manchester, McGee, Jacobs, Richards, Harris and Clarke.

3. DIAL MECHANISM

Mr. Eaton is working on a dial mechanism, which will be shown at the next meeting.

Mr. Harris brought into the meeting a dial which contained several parts of the present Light-O-Matic Dial together with several major improvements. This was thought to be of advantage as these parts could be put into production at once.

Pending completion of the dial Mr. Eaton is working on

10/11
All right
a decision on and approval of a dial mechanism was held over until the next meeting.

4. COMMITTEE ON COSTS

The cost committee had no report to make on costs. Final decision on design and drawings are necessary to obtain some of the costs. Mr. Cosden, speaking for the Cost Committee, reported some progress.

Cost Committee

Messrs: Manchester, Holley, Jacobs, Harris, Baker and Cosden.

5. CHASSIS FINISH

Mr. Harris showed sample plates which had been "Parkerized" and bronze lacquered. While the finish showed improvement and much less tendency to mar or show effects of handling, owing to the absence of Mr. Walsh, final approval of the finish for the chassis was held over until the next meeting.

Committee On Finish

Messrs: Harris, Jacobs, Manchester, McGee, Hargren and Richards.

6. JACK - CONVEYOR AND BENCH

Mr. Manchester favored the smaller Jack. He also stated that there was no need to give the Jack an offset at each end.

The design of the small Jack was approved as submitted.

7. BINDING POST ASSEMBLY

Mr. Harris showed an antenna and ground binding post assembly of molded material.

This assembly was approved.

Mr. Harris also stated that a pin jack assembly for electric pickup connections could be obtained.

8. LINE SWITCH

Mr. Harris stated that a decision on the type and location of the line switch will depend upon the dial panel. He has in mind a number of ways in which a line switch can be mounted when the design of a dial panel is decided upon.

9. SPEAKERS

Mr. Harris and Mr. McGee reported that they had made comparative tests of Jensen and Stevens speakers. Mr. McGee commented favorably on the Stevens speaker, both for tone quality and as a good business proposition. He stated that the Stevens Company was ready to do business on a basis of cost plus 10%.

It was thought advisable to consider the Stevens speaker when testing the other makes suggested by Mr. Walsh - namely Magnavox, Utah, Jensen and Symington. There may be other good speakers worthy of consideration.

Mr. Holly is obtaining samples of several makes of speakers.

Mr. Harris will make further tests.

10. MOUNTING SPEAKERS IN CABINETS

Procedure for mounting the speaker in cabinet was under discussion. Mr. Jacobs suggested that the speaker be raised as high as the construction of the speaker compartment would permit.

Mr. Harris said there was a possibility of eliminating the speaker base, providing the front panel of the cabinet was heavy enough to support the speaker. Lack of the base on speaker would probably equalize cost of heavier panel in cabinet.

Mr. Harris will present further data at next meeting.

11. DIAL ESCUTCHEON PLATE

Mr. Holly requested further advice on design of a new escutcheon plate.

Mr. Harris stated that the design of the escutcheon plate is dependent upon the approval of a dial mechanism.

Mr. Harris and Mr. Holly will be able to decide what action can be taken on escutcheon plate design, after adaptation of an approved dial mechanism.

12. VENTILATION OF TUBE SHIELDS

Mr. Jacobs stated that the addition of openings in tube shields would take care of this matter.

13. STRANDED WIRE

Mr. Jacobs will supply samples and specifications.

14. TO INCREASE LENGTH OF CHASSIS

Mr. Edison suggested that the length of the chassis be increased by $\frac{1}{2}$ inch to give more space for variable condensers and allow space for adding an additional variable condenser (making a total of six) or other make condensers. This was approved.

15. TO INCREASE DEPTH OF CHANNEL SHIELD

It was decided to increase the depth of the channel shield by 1/8th inch, to afford better shielding of wire leads. This was approved.

16. POWER UNIT CONNECTING BLOCK AND CABLE

Mr. Harris suggested and described connecting blocks and plugs as methods of attaching cord.

Mr. Holley is in touch with suppliers regarding connectors and will have samples and costs at next meeting.

Mr. Harris will also have further data ready at next meeting.

17. BURNED OUT SOCKETS

Mr. Holley will secure sample sockets.

Mr. Harris will make tests to determine the type of socket that will eliminate burning out.

18. CHASSIS METAL STOCK

A chassis made from 16 gauge (.062) stock, as recommended at previous meeting, was presented by Mr. Harris. As the chassis appeared to have the required strength and no objection was offered to the use of sheet stock of this gauge, approval for this construction was given.

19. OPEN AIR TRANSFORMERS

Further investigation of the open air transformer is being made by Mr. Harris. Mr. Holley is obtaining costs.

20. "B" TYPE LAMINATIONS

Mr. Holly is obtaining costs.

21. POTTING TRANSFORMERS AND CHOKES

There was considerable discussion on this subject. Some members of the committee favored the use of transformers and chokes partly open or encased in metal casings that formed both casing and mount for the transformers and chokes. Other members, particularly those connected with the sales department favored the present way of potting, plus a better design, as an added sales feature.

As this remained an open question to which consideration must be given, and a quick decision reached, the Engineering and Sales Depts. were requested to get together at the earliest opportunity

and present their views at the next meeting.

Mr. Manchester recommended that costs be obtained on this method of shielding and mounting with a view toward the manufacture of our own parts.

22. RECOMMENDATIONS FOR IMPROVEMENT

Mr. McGee put in writing a number of recommendations which he stated he would like to see incorporated into the new chassis design.

- a. The adoption of a spring lock to insure permanent adjustment of the pilot light in its socket, Yaxley Manufacturing Company have incorporated a similar spring in the design of their pilot light socket.

This was approved and will be carried out.

- b. An improved method of positively locking thrust screws on variable condensers. Complaints from the field indicate that the present method of locking the thrust screws by means of a nut is not as satisfactory as it might be. The present method might be improved by the addition of a lock washer.

This matter will be taken up with the Camden Condenser Co.

- c. Compensating condenser connecting lugs should be tinned to eliminate possibility of rosin joints in production.

Mr. Jacobs said that this had been taken up with Camden Cond. Co.

- d. The compensator adjusting screw should be insulated by means of a pure bakelite washer.

Mr. Jacobs said that this was now being done.

- e. Split steel compensator adjusting screw should be employed to replace the present style of adjustment screw.

Mr. Jacobs said that Camden would install these screws no charge if we supplied them.

23. CABINETS

Mr. Richards will have cabinets in from Wisconsin as soon as possible showing construction, etc.

24. IMPORTANT

Reports in writing are requested whenever possible to do so. This helps greatly in coming to a quick decision and avoids lengthy discussion on subjects that can be covered in a few written lines.

It also avoids errors and the need of correcting the minutes, due to misconstruing the points that should be brought out. It is difficult to arrive at proper conclusions to problems under lengthy discussion.

NOTE: Next meeting Friday, February 7th, 1930.

Those present:

Messrs:	T. M. Edison	W. R. Kurtz
	A. A. Manchester	E. Kother
	C. T. Jacobs	R. Burns
	P. J. McGee	E. Haker
	A. R. Karch	J. F. McCarthey
	G. C. Harris	F. F. Schweitzer
	W. O. Olson	G. Eaton
	W. W. Cowan	G. O. Cosden
	F. F. Holly	Nielsen
	John Holle	Clark
	A. J. Rhaines	E. Trautwein
	W. R. Arrowsmith	
	C. J. Hirsch	
	R. Sommers	

E. Trautwein

ms. 11-1-30

February 7, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were; Messrs:

T. M. Edison	W. W. Cowan	W. B. Arrowsmith
A. A. Manchester	G. O. Cosden	R. Burns
C. T. Jacobs	Kother	E. Haker
P. J. McGee	F. F. Holley	J. F. McCarthy
G. C. Harris	J. Holle	C. F. Schweitzer
W. O. Olson	A. J. Rhaines	G. Eaton
Mr. Clarke	W. R. Kurtze	H. B. Nielsen

Minutes of the January 31st meeting were approved as issued.

1. SOLDER LUGS

Mr. Holley presented some costs on Soldering Lugs which he has on file.

Mr. Harris called attention to the fact that there would be various kinds of soldering lugs if we buy commercially, most of the component parts, such as coils, condensers, audio transformers, and power transformers.

Having adapted a solder lug of our own design, it would be beneficial to standardize so far as possible in solder lugs as portion of the equipment of the various above mentioned parts.

The soldering Lug Committee will bring in further recommendations at the next meeting. Mr. Holley will supply additional cost figures.

SOLDERING LUG COMMITTEE

Messrs: Harris, Jacobs, McGee, Manchester, Berggren, Holle, Holley, and Nielsen.

2. DIAL PANELS

Mr. Edison stated different types were being made up. These panels are dependent upon the design of the dial which is still an open question.

DIAL PANEL DESIGN COMMITTEE

Messrs. Manchester, McGee, Jacobs, Richards, Harris, and Clarke.

*Copy 6-29-30
added to minutes*

3. DIAL MECHANISMS

Mr. Eaton presented a new dial design. A discussion of the production cost of this dial developed the fact that the cost of construction of this type of dial would probably be slightly under the cost of the dial used in the present set.

Mr. Harris showed a dial mechanism of new design which embodied a number of parts used in the present dial assembly. This dial contained fewer parts than the present assembly and due to its simple construction would lower production cost.

Mr. Holley presented some cost figures on dial parts which he has on file.

Mr. Harris stated, he was in a position to supply Mr. Holley with drawings, so that he could obtain cost estimates.

Mr. Manchester suggested that costs be obtained on complete dial assemblies, also on the various component parts of the dials. He further stated, that he favored the assembly of dials instead of purchasing complete assemblies. He was of the opinion that defects could be detected and corrections made during assembly of the dial, thus avoiding dismantling completely assembled dial mechanisms to correct some slight mechanical trouble.

Mr. Holley will obtain costs on dial mechanisms and parts as suggested by Mr. Manchester.

DIAL MECHANISM COMMITTEE

Messrs. Manchester, Jacobs, McGee, Harris, Richards and Clarke.

4. SPEAKERS

Mr. Harris stated, he had nothing further to report on speaker tests. He has on hand Stevens, Rola, and Magnavox speakers. The Symington speaker is expected to arrive this week. Mr. Harris will then be able to continue comparative tests. He will report further on this matter at the next meeting.

5. MOUNTING SPEAKERS IN CABINET

Mr. Harris stated he could make no definite report on mounting speakers as this was still a matter that required further investigation and a decision on the type of front panel in the new cabinets. Should the speaker be mounted on the front panel of the cabinet, the panel would have to be of heavy material. Owing to the absence of Mr. Richards the cabinet situation could not be taken up with him.

Mr. Harris stated further that mounting the speaker on the front panel of the cabinet and eliminating the speaker base would not result in a saving, as the extra connections made necessary by this method of mounting would offset the proposed saving. The strengthening of the front panel would probably add to the cost.

Mr. McGee favored mounting the speaker separately on a baffle board if it would result in better tone quality.

No decision being reached, it was decided to wait until Mr. Richards return before the question of mounting the speaker was definitely decided.

6. CHASSIS DESIGN

Mr. Harris was unable to show a chassis of the new design embodying the increase in dimensions approved at the previous meeting. Owing to the possibility of slight changes in the dimensions of the filter condenser containers, some slight change in the openings in the chassis may be necessary. Therefore, he did not build a chassis to the accepted dimensions.

7. POWER UNIT CONNECTING BLOCK AND CABLE

Mr. Harris stated, he was securing samples.

8. BURNT SOCKETS

Mr. Harris stated, he has under consideration, sockets of a different type that will eliminate this difficulty. This difficulty will not occur in the new models as a different type of socket will be used.

9. OPEN AIR TRANSFORMERS

A chassis was shown on which open air transformers were mounted. Mr. McGee questioned the use of open air audio transformers. He was of the opinion that moisture getting between the case and the laminations would cause a chemical action that would result in a breakdown of the transformers.

Mr. Harris agreed with Mr. McGee and cited the experience of Mr. Skimmerhorn in the use of open air audio transformers. He stated that Mr. Skimmerhorn's experience showed open circuits due to moisture which resulted in the return of a number of transformers. When potted, transformers are protected and less breakdowns occur.

The open air type of transformer will again come before the committee at the next meeting at which time the views of the Sales Department will be presented.

Cost figures on open air type and potted type transformers will be presented at the next meeting.

10. "B" TYPE LAMINATIONS

This is being considered in the general discussion of the power transformers.

TRANSFORMER COMMITTEE

Messrs. McGee, Harris, Manchester, Holley, and Karch.

11. VARIABLE CONDENSERS

Mr. Jacobs had no further report to make.

12. LINE VOLTAGE TAP

Mr. Harris is investigating this matter and will report at the next meeting. Mr. McGee will consult Mr. Walsh on the matter as soon as possible.

13. BILL OF MATERIALS (NEW CHASSIS DESIGN)

Mr. Haker requested a bill of materials be submitted at an early date. Mr. Harris said that he could supply a bill of materials as soon as the new chassis was available. Mr. Jacobs stated, that the new chassis could be heard at his home to-night. Members of the committee will visit Mr. Jacob's home and endeavor to reach a decision on the chassis as it will be demonstrated to them. If satisfactory, the chassis will be made the basis for a bill of materials that will enable approximate costs to be obtained.

Mr. Jacobs stated, he could supply nearly all the materials contained in the chassis to enable costs to be obtained and specifications to be drawn up in order to have this data available at an early date. Minor changes that may be necessary in any of the component parts can be made at a later date.

There being no new business to come before the Committee, the meeting adjourned.

The next meeting will be held in Building #25 February 14th at 1:30 o'clock P.M.

Please submit in writing any reports that are to be made.

E. Trautwein, Secretary.

Copies to: Messrs:	Chas. Edison	F. F. Holley	R. Burns
	T. M. Edison	John Holle	E. Haker
	R. H. Allen	A. J. Rhaines	W. Hardy
	A. L. Walsh	W. B. Arrowsmith	J. F. McCarthy
	A. A. Manchester	G. H. Sevraine	C. S. Williams
	C. T. Jacobs	E. M. Richards	C. F. Schweitzer
	P. J. McGee	W. Hildebrand	G. Eaton
	G. C. Harris	E. Trautwein	A. J. Clarke
	W. O. Olson		W. R. Kurtze
	W. W. Cowan	C. Luhr	F. Bostock
	G. O. Cosden	H. B. Nielsen	J. Greeley
	Mr. Kother	R. Sommers	Mr. Berggren

February 7, 1930.

REPORTS TO BE MADE AT NEXT RADIO DESIGN MEETING

(In making reports, please bring in a typewritten summary which will be suitable for incorporation in the minutes of the meeting.)

Mr. Harris	Paragraph #1	Soldering Lugs
Mr. Harris	" 2	Dial Panels
Mr. Harris	" 3	Dial Mechanism
Mr. Holley	" 3	Dial Mechanism Costs
Mr. Harris	" 4	Speaker Tests
Mr. Harris	" 5	Speaker Mounting
Mr. Harris	" 6	Chassis Design
Mr. Harris	" 7	Power Unit Connecting Block and Cable
Mr. Harris	" 8	Burnt Sockets
Mr. Harris } Mr. McGee }	" 9	Open Air Transformers
Mr. Jacobs	" 11	Variable Condensers
Mr. Harris } Mr. McGee }	" 12	Line Voltage Tap
Mr. Harris } Mr. Jacobs }	" 13	Bill of Materials
	" 13	New Chassis Design

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From minutes of 1930 Chassis Design Meeting February, seventh.

New Eng Record 111

55-65

Sub Mechan Chart Card 1375/11

noted
2-18-30
E.C.C.

February 14, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were: Messrs:

- | | | |
|-----------------|------------------|-----------------|
| T.M. Edison | W. W. Cowan | R. Burns |
| A.A. Manchester | F. F. Holley | E. W. Baker |
| C.T. Jacobs | J. Holle | J. F. McCarthy |
| J. McGee | A. J. Rhaines | F. F. Schwitzer |
| R. R. Karch | W. B. Arrowsmith | G. Eaton |
| G. C. Harris | C. J. Hirsch | Nielsen |
| W. O. Olson | W. R. Kurtze | A. J. Clark |
| | | E. Trautwein |

The minutes of the meeting of February 7th were approved as issued.

1. SOLDER LUGS

Mr. Harris showed sockets having a new design of solder lug which were favorably received by the committee. The committee will look into this matter and report at the next meeting.

SOLDER LUG COMMITTEE: Messrs: Harris, Jacobs, McGee, Manchester, Berggren, Holle, Holley and Nielsen.

2. DIAL MECHANISMS

Mr. Eaton again presented the dial developed by him and stated cost of this dial would be about three dollars and fifty cents. This cost included one hundred and sixty percent overhead. This would be the approximate cost figure if the dial was made and assembled in the works. He stated however, that this cost could be cut down considerably after a few changes he had in mind could be worked out and incorporated into the dial assembly.

Mr. Harris again presented the dial mechanism developed in his department. While he could give no official cost figures on this dial, he was of the opinion that the cost of the dial would be less than the cost of the dial used in Light-O-Matic models, which ranged in cost from two dollars and sixty seven cents to three dollars.

Dial costs are to be obtained by Mr. Harris and so soon as costs are available a special meeting will be held to decide upon the type of dial to be adapted.

DIAL MECHANISM COMMITTEE: Messrs: Manchester, Jacobs, McGee, Harris, Richards, Holley and Clarke.

3. DIALS IN EXPERIMENTAL SETS

Six dials developed by Mr. Eaton will be installed in chassis' and six dials developed by Mr. Harris will be installed in chassis'. the object of this installation is to subject the two types of dials to conditions comparable to actual operating conditions. These tests and cost of the two dials will determine the type of dial which will be adapted and put into production.

COMMITTEE: Messrs: Harris, Eaton, and Olson.

4. FIFTY EXPERIMENTAL SETS

Approval was given to the installation of fifty experimental sets in R-5 cabinets. These sets are to be equipped with the type of dial developed by Mr. Harris' department.

Mr. Cowan was delegated by Mr. Manchester to act as Keyman in direct charge of the assembly of the fifty sets mentioned above.

COMMITTEE: Messrs: Manchester, Cowan, and Haker.

5. SAMPLE CABINETS

Mr. Richards stated, there were six sample cabinets being made up at Wisconsin. These cabinets would be shipped to the factory as soon as possible so that the approval of the sales division could be obtained on the types of cabinets that would be adapted as the 1930 models. The early arrival of these cabinets is essential to cabinet production as a decision must be made as soon as possible to permit the cabinet factory to go into production on the accepted types. An early decision on types of cabinets for 1930 will permit action to be taken on matters now depending upon cabinet design.

COMMITTEE: Messrs: Manchester, McGee, Richards, Harris and Clarke.

6. ESCUTCHEON PLATE

Mr. Richards has made up some sketches of dial escutcheon plates. No decision on the type of plate was reached as the type of dial has not been decided upon nor has the dial panel.

Mr. Karch thought no radical change should be made in the design of the escutcheon plate for reason of the large quantity of advertising matter we now have showing the dial escutcheon of the present type.

It was decided to use the present type dial on the panels of the fifty sample sets which are to be installed in R-5 cabinets.

The escutcheon plate remains an open question until dial costs are determined. This will again come up at the next meeting.

COMMITTEE: Messrs: Richards, Holley, and Harris.

7. DIAL SCALE

Mr. Haker called attention to the paint on dial scales, rubbing off, also, the figures on the scale. He suggested that we secure laminated scales with the markings between the layers of the scale. This would provide a much better looking and more substantial scale.

COMMITTEE: Messrs: Harris and Holley.

8. PRODUCTION ON NEW SETS

Mr. Haker called attention to the need of making a early decision on the various matters which are delaying the making of tools for producing parts and placing of orders for necessary parts to commence production.

Mr. Harris stated, that most of the drawings were made and specifications drawn up. He needed only final approval on such things as dials, transformers, etc. As soon as a final decision is made on these parts the balance of the drawings and specifications can be made up and the manufacture of tools and purchase of parts can proceed.

Mr. Haker also pointed out the length of time necessary to make up the tools and to obtain parts from suppliers. As all members of the committee fully appreciate that production must start at the earliest possible date, it is important that development problems be concentrated upon and final decisions reached.

COMMITTEE: Messrs: Manchester, Cowan, Holle and Haker.

9. COMPLETE BILL OF MATERIALS

Mr. Haker suggested, a tentative bill of materials be made and orders placed for quantities of approved parts.

Pending approval of the fifty sets we are building as a basis for future production, final approval could be given suppliers to furnish the entire quota of parts.

Orders could be placed with the understanding that changes in specifications could be made at a later date.

This would give us the benefit of lower costs thru the purchase of parts in large quantities.

Mr. Haker requested that a date be set at which time a complete Bill of Materials would be supplied.

Mr. Harris stated, that until such time as final approval was given to certain parts that are now under development and waiting for costs, a complete bill of materials could not be made.

COMMITTEE: Messrs: Harris and Haker.

10. POWER PACK CHASSIS FRAME

After some discussion of the thickness of the chassis metal, it was decided to retain the present thickness of the metal which is fifty thousandths.

Mr. McGee called attention to the chassis metal bending and permitting the chassis to shift in the cabinet with the result that the speaker moves back from the baffle board.

To prevent the chassis from shifting, Mr. Richards will have small blocks placed at the back corners of the frame.

COMMITTEE: Messrs: Jacobs, Harris, Manchester and McGee.

11. CHASSIS (LOCATION OF HOLES)

Mr. Harris and Mr. Jacobs will determine the exact location of the holes in the chassis where transformers, chokes, and condensers will be located. Owing to slight changes in chassis dimensions, relocation of the holes becomes necessary.

11. CONNECTOR BLOCK, CABLE, AND SOCKETS
COMMITTEE: Messrs: Harris and Jacobs.

12. RELEASE OF CHASSIS FOR PRODUCTION

Mr. Edison made inquiry regarding details which are lacking to complete the chassis. His inquiry brought forth the statement that transformers, dials, R. F. Coils, and chassis layout were the principle items that must be approved before the chassis can be considered complete, a bill of materials drawn up and costs obtained. When this is done, all costs can be obtained and production proceed after the fifty chassis we are now building have been tested and approved.

13. CONNECTOR BLOCK, CABLE, AND SOCKETS

Mr. Harris is obtaining samples of connector blocks. Fifty sample sockets are being obtained from Eby company. This subject will come up at the next meeting.

COMMITTEE: Messrs: Harris and Holley.

14. VOLTAGE REGULATING TUBE

Mr. Harris, said he had made some tests of Voltage Regulating tubes. He will make some further tests. The Sales department will give views on the use of voltage regulating tubes from the sales angle.

COMMITTEE: Messrs: Harris and McGee.

15. VARIABLE CONDENSERS

Mr. Jacobs stated, he had not taken up again with the Camden Condenser Co., the matter of supplying with their condensers, solder lugs of the new type.

Lock Washers can be obtained and will supplied on condensers at per request.

Compensating Screws will be used by the Camden Condenser Company either as supplied by us or they will supply screws approved by us.

It was decided that we shall supply Camden with split steel screws, oversize thread - parkerized or blued.

16. PRONG WASHERS

Prong washers we are now using are not very satisfactory. These washers were used in order to work up the stock on hand. Mr. Holley stated, Splitdorf is tooled up to make prong washers of a better type and a supply of these washers may be obtained thru them.

17. HOOK BOLT WING NUTS

Mr. McGee suggested, wing nuts be eliminated in favor of some other type. Mr. Harris stated, either a square or hex nut would be considered. The type of bolt and nut to be used will be

determined when sample cabinets arrive, as the type of cradle used on these cabinets may determine the type of chassis holding bolt and nut.

COMMITTEE: Messrs: Harris, Richards and McGee.

18. OPEN AIR TRANSFORMERS

Mr. Harris stated, costs on open air transformers were still in process. Mr. Holley reported that no cost figures on laminations had been received.

Mr. Harris said that while costs were lacking on "B" type laminations he felt confident "EI" type would be less expensive than "B" type.

Mr. Harris thought there was no need of potting power transformers. He said that transformers, if preheated and impregnated with varnish would not be subject to corrosion.

Mr. Olson suggested that transformers be framed and a separate can could then be put over the transformer. He stated, that this would permit a standard size can or a can of a certain type to be used over transformers, chokes, and condensers. This would improve the appearance of the chassis. This method of enclosing transformers, chokes and condensers was approved by the committee. Sample cans will be made and presented for approval at the next meeting.

COMMITTEE: Messrs: Harris, McGee, Manchester, Olson, Holley, Jacobs, and Rhaines.

19. AUDIO TRANSFORMERS

Mr. McGee expressed the opinion that we should give more consideration to Open Air type of audio transformers before adapting this method of construction. He pointed out that Open Air Audio transformers might be affected by stray magnetic fields which would result in interference.

Further investigation will be made of this matter. A report will be made by Mr. Harris at the next meeting.

COMMITTEE: Messrs: Harris and McGee.

20. SPEAKER COMPARISON TESTS

Owing to failure to receive speakers from all manufacturers requested to submit speakers for test, Mr. Harris stated, he was unable to make any further tests.

21. COSTS ON 1930 MODELS

Mr. Cosden submitted a report in which he stated that the cost of material for the 1930 model radio has been reduced to approximately three dollars and twentyfive cents in excess of material cost for the present model.

February 14, 1930.

REPORTS TO BE MADE AT NEXT RADIO DESIGN MEETING

(in making reports, please bring in a typewritten summary which will be suitable for incorporation in the minutes of the meeting.)

TO:	PARAGRAPH #.	SUBJECT.
Mr. Harris)	1	Soldering Lugs
Mr. Harris) Mr. Holley)	2	Dial Mechanism
Mr. Cowan)	4	Experimental Sets
Mr. Richards	5	Sample Cabinets
Mr. Richards) Mr. Holley } Mr. Harris }	6	Escutcheon Plate
Mr. Harris) Mr. Holley)	7	Dial Scale
Mr. Harris)	9	Bill of Materials
Mr. Richards	10	Power Pack Chassis Frame (Packing Blocks)
Mr. Harris) Mr. Jacobs)	11	Location of Holes in Chassis
Mr. Harris) Mr. Holley)	13	Connector Block, Cable, and Sockets
Mr. Harris) Mr. McGee)	14	Voltage regulat- ing Tube
Mr. Harris) Mr. Holley)	18	Open Air Transformers
Mr. Harris) Mr. McGee)	19	Audio Transfor- mers
Mr. Harris)	20	Speaker Comparison Tests.

Taken from minutes of February 14th Chassis Design Meeting.

There being no further business to come before the Committee, the meeting adjourned.

The next meeting will be held in Building #25 February 21st at 1:30 o'clock P. M.

Please submit in writing any reports that are to be made.

E. Trautwein, Secretary.

Copies to Messrs:	Chas. Edison	E. F. Holley	R. Burns
	T. M. Edison	J. Holle	E. W. Haker
	R. H. Allen	A. J. Rhaines	W. Hardy
	A. L. Walsh	W. B. Arrowsmith	J. F. McCarthy
	A. A. Manchester	C. S. Williams	C. G. Clarke
	C. T. Jacobs	E. M. Richards	C. F. Schwietzer
	P. J. McGee	W. Hildebrand	G. Eaton
	G. C. Harris	E. Trautwein	A. J. Clark
	W. C. Olson	W. W. Cowan	W. R. Kurtze
	G. O. Gosden	C. H. Luhr	H. B. Nielsen
	R. Kother	C. Hirsch	R. Sommers
	Mr. Berggren	J. Greeley	F. Bostock

February 21, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were: Messrs:

T.M. Edison	G.C. Harris	F.F. Holley
A.L. Walsh	W.B. Arrowsmith	J. Holle
R.H. Allen	E.M. Richards	J.F. McCarthey
A.A. Manchester	W.O. Olson	A.J. Rhaines
P.J. McGee	W.W. Cowan	R. Sommers
C. Hirsch	W.R. Kurtze	E. Trautwein

The minutes of the meeting of February 14th were approved as issued.

1. SOLDER LUGS

Mr. Harris submitted a report on solder lugs as follows:

In an effort to reduce the cost of solder lugs part #200,142 Mr. Olson has submitted a new design which has been approved by the Sub-Committee on solder lugs. Specifications for this lug have been given to the Purchasing Dept. for a price estimate.

Mr. Harris stated, that the cost of this solder lug would be about one half the cost of the previous design.

Mr. Holley will obtain costs at once of this lug. Twenty five sample lugs will be made.

Mr. Manchester gave his approval to this lug. We will procure this type of lug.

2. DIAL MECHANISMS

Complete costs on the dial mechanisms as submitted by Mr. Harris were not presented.

As soon as complete costs are available Mr. Holley will present them.

Production Department will be responsible for assembly costs on dial mechanisms.

The committee decided to purchase parts for the dial mechanism and to have them assembled either by the Splitdorf Radio Corporation or the General Manufacturing Division.

In order to carry out this plan, it is important that prices be procured at the earliest possible moment.

Referred to Mr. Holley,

3. 1930 RADIO PRODUCTION

It is estimated that we lost the sale of fifteen thousand radio sets last year owing to our failure to make delivery. This year we should be ready to fill orders that come to us at the time of the June show.

In order to be able to deliver sets by June first, it will be necessary to start production, NOT LATER THAN MAY FIFTEENTH 1930.

There was considerable discussion as to whether it was possible to go into production by the above mentioned date.

The high points of this discussion are outlined below.

Mr. Manchester offered an alternative plan to going into production on the new set by May fifteenth. He suggested that we revise the present model with the following improvements, new finish, new dial, new cabinet, and new speaker.

With this plan we would have sets ready for delivery by June first 1930.

Mr. Edison questioned why we could not proceed with the new set so to have a quantity ready by June first?

Mr. Manchester stated, that after the set was complete and accepted by the Sales Department, that it would take some time to get ready for production. Owing to difficulties in training help and bringing thru production, it would probably be one month after starting production before quantity production would be reached. If production started on May fifteenth, Mr. Manchester stated, we could have five hundred sets ready for delivery by June first.

Mr. Walsh said he had heard conflicting rumors on the performance of the new model. With the exception of the few members on the committee, the Sales Department had not heard the new set perform.

He stated an automatic volume control was essential to the sale of the new radio set.

It was shown that the automatic volume control could not be used in the 1929 model without considerable changes in the chassis base.

Discussion also brought forth the statement that it would take longer to redesign the 1929 model than it would to complete the 1930 model.

It was definitely decided to have an automatic volume control on the 1930 model.

Mr. Walsh asked whether the new set, complete in all engineering details, could be heard.

Mr. Edison stated, that the new set had been released electrically as well as mechanically and could now be heard.

It was shown that many refinements had been added since the last demonstration at Mr. Jacob's home.

Mr. Cowan said we should proceed with caution until we are sure we are right. He thought we should wait until the fifty sample sets were tried out and any defects noted and corrected before all tools and materials were ordered for the new set.

Our past experience indicates that his point of view on this matter is worthy of serious consideration.

He stated that chassis tools were not ready for release, owing to probable changes in the location of the holes in the frame, for condensers, chokes, etc. These changes introduce an element of uncertainty which must be taken into consideration.

Mr. Edison remarked, after orders are placed for the tools, it will be about three weeks before the tools are tempered. This will give sufficient time to make changes that occur in the mean time.

The fifty sets would form the basis for any changes in the die for the chassis frame and the cost of the die would be justified in the time saved.

In order to commence production on the specified date, May fifteenth, tools for all metal parts must be released as soon as possible.

Mr. Allen suggested the following procedure.

1. Research Department make preliminary design.
2. Engineering Department make working model.
3. Sales Department approve working model.
4. Submit to Manufacturing Department for production costs.
5. Construction of sets for Sales Department.

The 1930 radio set is now ready to be turned over to the Sales Department for approval of the working model.

4. PRODUCTION MATERIAL

A Bill of Materials with a schedule of dates when orders must be placed for parts to insure production of sets on May fifteenth 1930 was submitted by Mr. Burns. This bill of materials was completely revised with regard to dates on those items which need immediate decisions.

For dates on all items discussed, see the following tabulation.

Item	Date to be released.
Dial assembly complete	March 15th.
2 Gang Variable Condenser } 3 " " " }	March 15th.
Large Dog House } Small Dog House }	February 24th.
.05 - 2 Paper Condensers } .1 - 2 " " }	February 21st.
Cans for above (2 in each)	
Tube Base Shields } Slotted Tube Shields } Unslotted Tube Shields }	Released.
Arm & Mtg. for Switch	Open.
Main Chassis Frame } Var. Cond. Mount L } Channel L Piece }	February 26th.
Coil Shield Bases Copper } Coil Shield }	Released.
Inter-stage Coil Assemblies)	Except size of wire and No. Turns.
Filter Coil Assemblies	Released.
Antenna Coil Assembly	Released.
Filter Condenser Containing Can	Released - base dimensions.
Auto-transformer Copper Can	Released.
Bakelite Terminal Board Can	Released.
Copper Can for R. F. Choke	Released.
Can for 18 lug Term. Board	Released.
Power Pack Base	February 26th.
Mtd. chic T.E. 4 Audio Transformer	Can Released.
15 Mil 50 Henry Choke	Can Released.
25 Henry 100 Mil tapped Choke	Can Released.
Power Transformer	Can Released.
Cabinets	Ready in time.
Jensen Speaker	Open.
Motor Board Assembly	Same as Present.

5. STATIC ELIMINATOR

Mr. Walsh asked if a means for reducing static would be used in the 1930 model? Mr. Edison said, it made little difference and would increase the expense. For these reasons, it was thought advisable not to use a device of this kind.

6. PROBABLE CHANGES

Mr. Sommers stated, that some changes would probably be made in the R.F. coils - namely in the size of the wire and number of turns.

He also added, there would be some changes in gang condensers. However, the manufacturer could make these changes without difficulty.

Mr. Baker pointed out, it would be necessary to buy in large quantities to obtain the benefit of lower quotations.

Mr. Edison advised that orders for parts be placed with cancellation clauses, if necessary, to take care of changes in design.

7. DIAL MECHANISMS

After considerable discussion on parts for the dial mechanism, it was felt that any part in the dial mechanism could be obtained in six weeks.

8. FIRST FIVE THOUSAND SETS

Mr. Walsh said, after acceptance by the Sales Department, he would place an order for the first five thousand sets.

9. GANG CONDENSERS

Mr. Holley will obtain costs and samples. He will report at the next meeting. It is important that we have more than one source of supply of gang condensers.

10. TOOLS

Mr. Olson questioned whether successful bidders will be able to make delivery of tools in the time specified.
Referred to Purchasing Department.

11. TUBE BASE SHIELD

Mr. Olsen said five hundred tube base shields could be made in the Works.

12. RADIO-PHONO TRANSFER SWITCH

Considerable discussion took place with regard to the location of the arm and mount for the radio-phono transfer switch. The locations suggested for the switch were (1) on the panel, (2) on the motor board, (3) on the dial.

As no decision was reached, this question was referred to the Dial Panel Committee for immediate action.

Committee: Messrs: Harris, McGee, Manchester, Richards, and Jacobs.

13. MAIN CHASSIS FRAME

Decision on location of radio-phonograph switch is holding up completion of drawings of the chassis frame.

14. MOTOR BOARD ASSEMBLY

Mr. Edison said, there should be no hold up as the motor board assembly is the same as the 1929 model.

16. CABINETS

Mr. Walsh felt confident we would have cabinets ready for May 15th production.
Referred to Mr. Richards.

16. SPEAKERS

Mr. Harris stated, the Jensen Speaker Company is shipping us a new model speaker for test.

Mr. Walsh stated, other things being equal, we would probably use the Jensen speaker in the 1930 model. He pointed out that it would be undesirable to use a speaker manufactured by some company that is making radio sets. He further stated, the Utah Speaker Company was not connected with any concern now making radio sets. He thought the Utah speaker should be considered also, when making tests.

Mr. Baker stated that we had 1,000 Jensen speakers on hand which would be taken back by the Jensen Manufacturing Company, to be remodeled, provided we placed our order with them for speakers for the 1930 model.

17. -POWER PACK AND MOUNTING OF PARTS

It was decided to adapt the open air transformer (housed in a metal can) for 1930 production. The power transformer will not be potted.

Chokes, condensers, etc. will be potted.

Mr. Harris stated, that the power transformer will be preheated to remove moisture and will be impregnated with a varnish to guard against corrosion.

18. FUSE TO CONTROL LINE VOLTAGE.

It was decided to use a fuse to control line voltage. The taps to remain 105, 115, 125 volts.

It was thought that a guarantee notice should accompany the set, stating, "GUARANTEE WILL HOLD ONLY IF THE RIGHT CAPACITY FUSE IS USED".

19. SUB-PANEL COMMITTEE REPORT

A Sub-committee consisting of the following members met on February 20th and arrived at the decision detailed herein. Those present were A. A. Manchester, P. J. McGee, G. C. Harris, W. O. Olson, E. M. Richards and W. W. Cowan.

1. It was found possible and is considered economical to mount the panel as a part of the cabinet. The panel instead of being glued in place, will be secured by screws or other means which will make it detachable in the event of damage or any other reason which might require removal.

2. The holes in the panel will be accurately located with respect to the receiver unit shelf by means of a jig.

3. Calibration of the receiver unit will be accomplished by means of a jig and will be located from the punching pin and the dial tuning shaft. These points also will be used to locate the escutcheon plate after the chassis has been mounted in the cabinet. The escutcheon plate will be secured by screws to the panel.

4. After the chassis has been secured by the hook bolts, additional blocks will be screwed in place at the rear corners to prevent shifting.

5. Knobs will be of the push-on type. All shafts will be one quarter inch in diameter and will have a flat to accommodate the push-on type knob.

6. This arrangement of mounting necessitates mounting the line switch on the panel prior to mounting the chassis in the cabinet. It will be noted also that a thin nut will be on the surface of the panel. However the nut will be hidden by the switch knob.

20. CONNECTING CABLE PLUG

Mr. McGee submitted a memorandum on the connecting cable plug which reads as follows. "I believe that a connecting plug similar to the one employed on the current Victor chassis should be adapted for use on our 1930 chassis to insure permanent and positive connection, and to avoid field troubles.

21. MERSHON CONDENSER

Mr. McGee submitted a memorandum recommending consideration of the Mershon condenser. It was felt that this matter should be held in obedience as the use of this type of condenser would necessitate changes in the power pack.

22. PURCHASING POLICY

Messrs. Allen, Walsh and Clark are considering this matter.

23. DESIGNATION OF RECEIVER AND POWER UNITS BY TYPE LETTERS AND SERIAL NUMBERS.

The following committee was appointed to make a decision as soon as possible, and report on the above.

COMMITTEE: Messrs: McGee, Harris, Arrowsmith, and Rhaines.

24. CORRECTION

The following is a correction of a statement attributed to Mr. Walsh in the minutes of the January 24th Chassis Design Committee meeting. This correction is self explanatory.

In the Minutes of the "Chassis Design Committee" for January 24, I am misquoted as follows: "Mr. Walsh recommended investigation of the Pentode tube, the use of which may reduce the number of tubes in Edison Radios."

I certainly don't want anything lying around in files which gives the impression that I even considered the adoption of the Pentode tube. At the meeting of January 24 I merely stated that the radio pages of newspapers and magazines were spreading publicity to the effect that radio sets of the future will have fewer tubes. Because of such publicity, I was reluctant to produce a set for this year which would contain 11 tubes -- such a receiver having been discussed around that time.

Instead of urging that we consider the adoption of the Pentode tube I should be a bitter opponent if anybody in the organization made such a suggestion at this time.

Art Walsh.

25. SUMMARY

Mr. Walsh called attention to the fact that a great number of questions that come up at the meetings are held over until the following meetings. He said that we have now reached the point where we must make decisions at once in order to meet production schedules.

Our success this year will depend upon our ability to ship sets promptly. To do this, it will be necessary for everyone to get behind his job and push.

NOTE Should anyone meet with difficulty in putting over his end of the job, he is requested to make this fact known. If necessary, help will be given those who need it. It is absolutely necessary that we go into production on the 1930 set - not later than May 15th. 1930.

REMINDER May we again state, that much depends upon the early completion of the sixty two sample sets, now under construction.

The next meeting will be held in Building # 25 February 28th at 1:30 P.M. Please be on time.

There being no further business to come before the committee, the meeting adjourned.

E. Trautwein, Secretary.

Copies to: Messrs:

Chas. Edison
T. M. Edison
R. H. Allen
A. L. Walsh
A. A. Manchester
C. T. Jacobs
P. J. McGee
G. C. Harris
W. O. Olson
G. O. Cosden
R. Kother
Mr. Berggren

F. F. Holly
J. Holle
A. J. Rhaines
W. B. Arrowsmith
C. S. Williams
E. M. Richards
W. Hildebrand
W. W. Cowan
C. H. Luhr
G. Hirsch
J. Greeley
R. Burns

E. W. Haker
W. Hardy
J. F. McCarthy
C. G. Clarke
C. F. Schwietzer
G. Eaton
A. J. Clark
W. R. Kurtze
H. B. Nielsen
R. Sommers
F. Bostock
E. Trautwein.

February 21, 1930.

REPORT TO BE MADE AT THE NEXT RADIO DESIGN MEETING

To:	PARAGRAPH #	SUBJECT
Mr. Holly (Cost)	1	SOLDER LUGS
Mr. Holly (Cost)	2	DIAL MECHANISMS
Mr. Holly (Cost)	9	GANG CONDENSERS
Mr. Holly (Cost)	10	TOOLS
Mr. Harris) Mr. McGee) Mr. Manchester) Mr. Jacobs) Mr. Richards)	12	RADIO-PHONO TRANSFER SWITCH
Mr. Richards	15	CABINETS
Mr. Harris	16	SPEAKERS
Mr. McGee) Mr. Harris) Mr. Arrowsmith) Mr. Rhaines)	23	DESIGNATION OR RECEIVER AND POWER UNITS BY TYPE LETTERS AND SERIAL NUMBERS.

Taken from the minutes of the meeting held February 21st.

February 28, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T. M. Edison	E. M. Richards	G. C. Cosden
R. Burns	A. J. Clark	C. J. Hirsch
A. A. Manchester	F. F. Holly	H. B. Nielsen
C. T. Jacobs	J. Holle	C. G. Clarke
P. J. McGee	E. Haker	W. R. Kurtze
G. C. Harris	A. J. Rhaines	R. Kother
W. O. Olson	J. F. McCarthy	E. Trautwein
W. W. Gawan	W. B. Arrowsmith	

The minutes of the meeting of February 21 were approved as issued.

Much of the information in the minutes is confidential, and members of the committee were asked not to leave copies of the minutes lying around where they can be examined by different people.

1. SOLDER LUGS

Mr. Holly submitted a report on cost, which is on file.

2. DIAL MECHANISM

Mr. Harris submitted a report on the dial scale, together with a sample. Referred to Mr. Walsh for approval.

3. 1930 RADIO PRODUCTION

A partially complete set will be turned over to Mr. Walsh tonight for demonstration. Mr. Jacobs will turn over a complete set to the Sales Department for final approval by March 3.

Mr. Jacobs stated he would supply the Splitdorf Radio Corporation with two complete sets for use in the Production Department.

4. PRODUCTION MATERIAL

Mr. Harris presented a memorandum on the procedure with regard to drawings and specifications for production release. This report is on file and was approved by the committee.

Tools have not yet been ordered for the different parts for the new set. Mr. Manchester will see Mr. Walsh and arrange to place order with the Purchasing Department so that they can go ahead with ordering parts for the 1930 radio set.

Mr. Edison suggested that a notation be made on drawings stating that they would be subject to revision owing to changes in design. It was understood that tool manufacturers would keep in

February 28, 1930.

close touch with the Engineering Department for these changes in design.

New Items Released: Detector Unit Auto Transformer
Audio Unit R. F. Choke

5. RADIO PHONO TRANSFER SWITCH

The location of the radio phono transfer switch was approved as submitted, with certain modifications to meet the suggestions of the committee.

6. PROBABLE CHANGES

Mr. Jacobs stated there would probably be some changes in the design of the new set before it is finally approved. He referred in particular to resistors and condensers.

6. TYPE LETTERS AND SERIAL NUMBERS FOR NEW SET

Mr. Harris submitted a report which was approved as far as the numbering system was concerned. This year's receiver and power unit will be known as Model A.

It was decided that Mr. Manchester would consult with Mr. Luttrupp with regard to the method of printing numbers on the chassis.

7. REPORT FROM COST COMMITTEE

It is estimated that the cost of the new dial parts will be approximately 88¢.

Mr. Holly suggested the possible elimination of the female plug on the main line cord, in order to effect a saving. He will obtain a report on this, and the matter will be referred to Mr. Walsh for decision.

8. REPORT OF PROGRESS ON FIFTY SETS

Mr. Cowan stated that complete specifications were not available on some parts, especially the R. F. coils.

Mr. Olson stated that 12 chassis frames will be turned over to Splitdorf Radio Corporation on Monday for assembly.

Mr. Edison suggested that a chart be made up showing the progress being made to complete the 50 sets, and he also mentioned this same chart could be used to outline a program for future production. Referred to Mr. Cowan.

9. QUESTIONNAIRE

Mr. Arrowsmith will make up a list of questions which will be used as a basis of making up a questionnaire on the 50 sets now under construction.

February 28, 1930.

10. CONNECTING CABLE PLUG

The question of soldering connections on the connecting cable plug was referred to the Solder Lug Committee, who will make a report at the next meeting.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, March 7, at 1:30 P.M. Please be on time.

E. Trautwein, Secretary.

Copies to: Messrs.	Chas. Edison	F. F. Holly	E. W. Haker
	T. M. Edison	J. Holle	J. Hardy
	R. H. Allen	A. J. Rhaines	J. F. McCarthy
	A. L. Walsh	W. B. Arrowsmith	C. G. Schweitzer
	A. A. Manchester	C. S. Williams	G. Eaton
	C. T. Jacobs	E. M. Richards	A. J. Clarke
	P. J. McGee	W. Hildebrand	W. R. Kurtze
	G. C. Harris	W. W. Cowan	H. B. Nielsen
	W. O. Olson	C. H. Luhr	R. M. Somers
	G. C. Cosden ✓	C. J. Hirsch	F. Bostock
	R. Kother	J. Greeley	E. Trautwein
	K. Berggren	R. Burns	C. G. Clarke

February 28, 1930.

REPORTS TO BE MADE AT THE NEXT RADIO DESIGN COMMITTEE

	<u>Paragraph</u>	
Mr. Harris	2	Dial Mechanism
Mr. Manchester	6	Type letters and serial numbers on new set
Mr. Holly	7	Elimination of Female Plug on Main Line Cord
Mr. Cowan	8	Chart on progress on 50 sets
Mr. Arrowsmith	9	Questionnaire
Messrs Harris Jacobs McGee Manchester Berggren Holle Holly Nielsen	10	Connecting Cable Plug

Taken from minutes of meeting held February 28.

March 7, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T. M. Edison	J. Holle	W. R. Kurtze
R. Burns	E. Haker	R. Kother
G. C. Harris	W. B. Arrowsmith	
W. O. Olson	G. C. Cosden	
W. W. Cowan	H. B. Nielsen	
F. F. Holly	C. G. Clarke	

The minutes of the meeting of February 28 were approved with the following correction:

Paragraph 4 - New Items Released: Detector Unit Auto Transformer
Audio Unit R. F. Choke

These items were not released on February 28th, but since that time the Detector Unit Auto Transformer has been released.

There is a correction to the minutes of the meeting of February 14, as follows: Under Item 18 - Omit last paragraph.

1. DIAL MECHANISM

Dial mechanism completely approved except for color of scale and addition of "silent key". Referred to Mr. Walsh.

2. 1930 RADIO PRODUCTION

The set has not had final approval by the Sales Department yet.

Mr. Walsh has authorized tools to be ordered for the 1930 sets. No parts have yet been ordered.

The Production Department has been supplied with only one chassis to date. Another chassis is needed at once. Referred to Mr. Jacobs.

The power pack has not yet had final approval. Test to be made by Mr. Harris on effect of location of cable on noise.

3. PRODUCTION MATERIAL

No tools have yet been ordered. All orders for tools for the metal parts for the chassis will be placed tomorrow.

Mr. Holly is preparing a list of items which must be ordered at once in order to be ready for production on May 15th. He will submit this at the next meeting.

4. PLANT LAY OUT

Appropriation has been made to carry on the work for the plant lay out. This work is now going ahead rapidly. In order to complete the lay out for the third floor of Building 24, a complete breakdown of sub-assemblies must be made. Referred to Mr. Holle and Mr. Kother. The lay out for the cabinet assembly line is now ready for approval. Referred to Mr. Manchester and Mr. C. G. Clarke.

5. POWER TRANSFORMERS

Mr. Harris submitted two samples of power transformers. A committee consisting of Messrs. Harris, Cowan, Haker, Holly, and Kother was appointed to report on power transformers, filter chokes, and audio transformers. This committee will get together at once and decide what parts shall be bought separately and assembled in our plant.

6. NEW DESIGN PROBLEMS

Mr. Harris brought up a number of questions on design as follows:

Item 1 - Fastening of R. F. Coils to base - Referred to the Engineering Dept.

" 2 - Method of fastening compensating condenser - Approved

" 3 - Connecting cable - O.K. for first 50 sets

" 4 - Loud Speaker - Jensen approved. Referred to Mr. Walsh.

The committee decided in favor of the Jensen speaker for the first 5000 sets. Referred to Mr. Walsh for his approval.

7. TYPE LETTERS AND SERIAL NUMBERS FOR NEW SET

Mr. Manchester will see Mr. Luttrupp about printing numbers on chassis, and also on cover for fuse box on power pack.

8. REPORT FROM COST COMMITTEE

Complete costs on dial are not yet available. Mr. Olson pointed out that tools for the die casting for the dial should be made up at once. Referred to Mr. Cowan.

It was decided that the female plug on the line cord would not be eliminated.

9. CONDENSERS

Mr. Holly read a letter from the Radio Condenser Company of Camden stating that they wished us to place orders with them for condensers for 1930 production on or before March 15.

Mr. Burns will see Mr. Lanahan and Mr. Jacobs regarding the conference with representatives of Scovill Manufacturing Company.

At present condensers are being held up awaiting specifications. Referred to Mr. Jacobs.

March 7, 1930.

10. REPORT ON PROGRESS OF FIFTY SETS

Mr. Cowan stated that specifications are continually being changed. It is expected that the Production Department will probably start assembly on the first fifty sets early next week provided fewer changes come through.

11. QUESTIONNAIRE

Mr. Arrowsmith is awaiting Mr. McGee's return before he submits the portion of the questionnaire which he has already made up.

12. SOCKET LUGS

The Solder Lug Committee were in favor of having the lugs on all sockets uniform and tin dipped, with the exception that heavier material is to be used for the connecting plug socket.

Mr. Harris will submit a report on methods of soldering the connecting cable plug.

13. ESCUTCHEON PLATE

The committee felt that immediate decision should be made on the escutcheon plate for the 1930 radio production on account of the time which it takes to get these. Referred to Mr. Walsh and Mr. Richards for their decision.

14. FINISH

Mr. Harris stated that the finish for the 1930 radio set will be bronze - the same as for the ER-5. He is making up specifications now.

15. FEMALE CONNECTORS

Mr. Holly pointed out that General Electric Company will require six weeks from receipt of order to deliver female connectors.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, March 14, at 1:30 P.M. Please be on time.

E. Trautwein, Secretary.

G.

Copies to: Messrs.	Chas. Edison	F. F. Holly	E. W. Baker
	T. M. Edison	J. Holle	W. Hardy
	R. H. Allen	A. J. Rhaines	J. F. McCarthy
	A. L. Walsh	W. B. Arrowsmith	C. G. Schweitzer
	A. A. Manchester	C. S. Williams	G. Eaton
	C. T. Jacobs	E. M. Richards	A. J. Clark
	P. J. McGee	W. Hildebrand	W. R. Kurtze
	G. C. Harris	W. W. Cowan	H. B. Nielsen
	W. O. Olson	C. H. Luhr	R. M. Somers
	G. C. Gosden	C. J. Hirsch	F. Bostock
	R. Kother	J. Greeley	E. Trautwein
	K. Berggren	R. Burns	C. G. Clarke

March 7, 1930

REPORTS TO BE MADE AT THE NEXT RADIO DESIGN MEETING

	<u>Paragraph</u>	
Mr. Harris	1	Dial Mechanism
Mr. Holly	3	Production Material
Mr. Harris } Mr. Cowan } Mr. Haker } Mr. Holly } Mr. Kother }	5	Power Transformers Filter Chokes Audio Transformers
Mr. Manchester	7	Type Letters and Serial Numbers
Mr. Burns	9	Condensers
Mr. Cowan	10	Report on Progress of 50 Sets
Mr. Arrowsmith	11	Questionnaire
Mr. Richards	13	Escutcheon Plate

Taken from minutes of meeting held March 7.

March 14, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T. M. Edison	A. A. Manchester	A. J. Clark
R. Burns	W. W. Cowan	G. C. Cosden
A. L. Walsh	J. Holle	W. R. Kurtze
G. C. Harris	F. F. Holly	C. G. Clarke
W. O. Olson	E. W. Haker	G. Eaton
P. J. McGee	A. J. Rhaines	G. F. Schweitzer
W. B. Arrowsmith	J. F. McCarthey	R. Kother

The minutes of the meeting of March 7 were approved as issued.

1. DIAL MECHANISM

Dial mechanism completely approved except for color of scale and addition of "silent key". Referred to Mr. Walsh for further consideration.

Escutcheon plate - No decision as yet. Referred to Mr. Walsh.

2. 1930 RADIO PRODUCTION

The set has not had final approval by the Sales Department as a satisfactory model has not yet been presented. Mr. Edison stated that in all probability a complete job would be available by Tuesday, March 18.

Tools for metal parts for which complete drawings are available have been ordered.

A second chassis has not yet been supplied to the Production Department. Referred to Mr. Jacobs.

The power transformer for the 1930 set will not be potted but will be covered with a metal can. The A and B chokes and audio transformers are to be potted.

3. POWER PACK

The power pack as submitted by Mr. Harris was approved, mechanically only, with the following changes:

1. The length of the power pack frame is to be the same as the length of the chassis for 1930 production.
2. The design for the plug socket is to be changed so that another type of connecting plug can be used at a later date if the design as submitted does not prove satisfactory.

March 14, 1930.

4. PRODUCTION MATERIAL

The authority given Mr. Manchester and Mr. Holly by Mr. Walsh recently to purchase certain screw machine parts in quantities up to 25,000, with the usual cancellation clauses, was further extended to include such other items as may be purchased economically in larger quantities. This extension is to include items that will not be made obsolete by any electrical changes, and orders for these items in larger quantities are to be approved by Mr. Theodore Edison and Mr. Harris.

Mr. Walsh stated that decision on the speaker would be held up until Mr. Harris has made a more thorough investigation on the Utah speaker.

5. PLANT LAY OUT

An approved lay out for sub-assemblies on the third floor of Building 24 is not yet available. Referred to Mr. Holle and Mr. Kother.

Lay out for cabinet assembly is ready for approval. Referred to Mr. Manchester and Mr. C. G. Clarke.

6. POWER TRANSFORMERS, FILTER CHOKES, AND AUDIO TRANSFORMERS

Nothing further to report at this time. Referred to Messrs. Harris, Cowan, Holly, Haker, and Kother.

7. R. F. COILS

It was decided that part of our supply of R.F. coils would be made in the plant and part would be purchased on the outside.

8. TYPE LETTERS AND SERIAL NUMBERS FOR NEW SET AND PRINTING ON FUSE BOX FOR POWER PACK

Mr. Cowan is looking into this matter and will report on it before next Tuesday, March. 18.

9. PROGRESS ON FIFTY SETS

Mr. Cowan stated that sub-assemblies will start as soon as lugs are received.

10. QUESTIONNAIRE

Mr. Arrowsmith is still working on this.

11. SOCKET LUGS

Mr. Harris reported he was waiting for samples from Eby. This item held up until sockets are received.

March 14, 1930.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, March 21, at 1:30 P.M. Please be on time.

R. Burns.

G

Copies to: Messrs. Chas Edison F. F. Holly E. W. Haker
T. M. Edison J. Holle W. Hardy
R. H. Allen A. J. Rhaines J. F. McCarthey
A. L. Walsh W. B. Arrowsmith C. F. Schweitzer
A. A. Manchester C. S. Williams G. Eaton
C. T. Jacobs E. M. Richards A. J. Clark
P. J. McGee W. Hildebrand W. R. Kurtze
G. C. Harris W. W. Cowan H. B. Nielsen
W. O. Olson C. H. Luhr R. M. Somers
G. G. Gosden ✓ C. J. Hirsch F. Bostock
R. Kother J. Greeley C. G. Clarke
K. Berggren R. Burns E. Trautwein

March 14, 1930.

REPORTS TO BE MADE AT THE NEXT RADIO DESIGN MEETING

Mr. Harris	Paragraph 4	Production Material - Speaker
Mr. Harris } Mr. Cowan } Mr. Holly } Mr. Haker } Mr. Kother }	" 6	Power Transformers Filter Chokes Audio Transformers
Mr. Cowan	" 8	Type letters and serial numbers, etc.
Mr. Cowan	" 9	Progress on 50 sets
Mr. Arrowsmith	" 10	Questionnaire

Taken from minutes of meeting held March 14.

March 21, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T. M. Edison	J. Holle	C. T. Jacobs
R. Burns	F. F. Holly	R. M. Somers
A. A. Manchester	E. W. Haker	C. G. Clarke
G. C. Harris	J. F. McCarthy	W. R. Kurtze
W. O. Olson	A. J. Clark	R. Kother
W. B. Arrowsmith	E. M. Richards	O. Besser
W. W. Cowan	G. C. Cosden	

The minutes of the meeting of March 14 were approved as issued.

1. DIAL MECHANISM

Mr. Harris stated that the color of the scale for the dial mechanism has been tentatively approved by Mr. Walsh.

The calibration for the scale will not be decided until the fifty sets are made up.

2. ESCUTCHEON PLATE

No decision has yet been made on the escutcheon plate. This item is held up awaiting final decision on cabinets. Referred to Mr. Walsh and Mr. Richards.

3. 1930 RADIO PRODUCTION

The set was approved by the Sales Department on March 19, with certain changes recommended by Mr. Walsh to give the proper tone. Referred to Mr. Jacobs.

No cabinets have yet been ordered. Mr. Richards stated that one model of cabinet will probably be released early next week. Referred to Mr. Walsh.

Orders for tools for the chassis were placed today with the General Manufacturing Division.

Mr. Holly submitted a list of tool orders and production part orders which have already been placed. This report is on file.

A second chassis has not yet been turned over to the Production Department. Referred to Mr. Jacobs.

Mr. Edison mentioned that some of the fifty sets should be given bump tests. Observations should be made to see if the filler in the mystery boxes becomes loose.

March 21, 1930

- 2 -

4. POWER PACK

Tools for the power pack frame have not yet been ordered. Drawings and specifications are now being completed.

The length of the power pack frame has been increased to make it the same length as the chassis frame.

Design of plug socket - Of the 50 sets now under construction at least ten of them will have a plug socket for an alternative design. Referred to Mr. Harris.

5. PRODUCTION MATERIAL

Mr. Haker submitted a list of orders placed with the Purchasing Department for the first schedule on the 1930 set.

Specifications and drawings should be completed at once on the following items so that orders may be placed without delay: Transformer coils, choke coils, power pack base, paper condensers, variable condensers, volume control, tone control, R. F. coils, carbon resistors, switches, shielded wire, and scale. Referred to Mr. Harris.

Mr. Cowan, Mr. Somers and Mr. Harris will get together at once and complete all specifications.

1300 Jensen speakers now in the plant can be used for the first production on the 1930 model. The finish on these speakers must be changed if they are used.

Mr. A.J. Clark stated that a decision will be made on Saturday morning, March 22, as to our future supplier on gang condensers.

6. PLANT LAY OUT

Sub-assembly lay out not yet available. Referred to Mr. Holle and Mr. Kother.

7. POWER TRANSFORMERS, FILTER CHOKES, AND AUDIO TRANSFORMERS

It was decided that this year we will buy all coils and laminations and assemble them in Splittdorf Radio plant.

Mr. Harris submitted a memorandum with sample of power transformer lug. It was decided that this type of lug would be held over until samples of other lugs are received.

March 21, 1930

- 3 -

8. TYPE LETTERS AND SERIAL NUMBERS FOR NEW SET AND PRINTING ON FUSE BOX OF POWER PACK

No report available on this. Referred to Mr. Cowan.

9. PROGRESS ON FIFTY SETS

Mr. Cowan stated that sub-assemblies were still being held up waiting for solder lugs. It is expected that lugs will be here on Monday, March 24. The fifty chassis bases will all be turned over to the Production Department next week.

10. QUESTIONNAIRE

No report yet available. Referred to Mr. Arrowsmith.

11. FIRST 5000 SETS

An order for the first 5000 sets with breakdown into different types has not yet been turned over to the Splitdorf Radio Corporation. Referred to Mr. Walsh.

12. MOTOR BOARD ASSEMBLY

There will be no combination models among the first release of 5000 sets.

13. FINISH

Mr. Olson stated that parkerizing acted as an insulator on the different metal parts and prevented making satisfactory ground connections. He suggested that a copper flash be used instead of parkerizing. Mr. Holly will obtain comparative costs of finishes using copper flash and parkerizing.

The finish of all the different metal parts is referred to the Committee on Finish for immediate action. Committee on Finish: Messrs. Harris, Jacobs, Manchester, McGee, Berggren, and Richards.

14. DECISIONS

Mr. Jacobs stated that the slots for the dog houses will probably not be changed from their present location.

It was decided that all cans are to be equipped with removable tops and are to be slotted on the side.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, March 28, at 1:30 P.M. Please be on time.

R. Burns

G

March 21, 1930

- 4 -

Copies to: Messrs:

Chas. Edison	F. F. Holly	E. W. Haker
T. M. Edison	J. Holle	W. A. Hardy
R. H. Allen	A. J. Chaines	J. F. McCarthy
A. L. Walsh	W. B. Arrowsmith	C. F. Schweitzer
A. A. Manchester	C. S. Williams	G. Eaton
C. T. Jacobs	E. M. Richards	A. J. Clark
P. J. McGee	W. Hildebrand	W. R. Kurtze
G. C. Harris	W. W. Cowan	H. B. Nielsen
W. O. Olson	C. W. Luhr	R. M. Somers
G. C. Cosden ✓	C. J. Hirsch	F. Bostock
R. Kother	J. Greeley	C. J. Clarke
K. Berggren	R. Burns	E. Trautwein

March 21, 1930

- 5 -

REPORTS TO BE MADE AT THE NEXT RADIO DESIGN MEETING

Mr. Cowan	Paragraph 8	Type letters and serial numbers etc.
Mr. Cowan	" 9	Progress on 50 sets
Mr. Arrowsmith	" 10	Questionnaire
Messrs. Harris Jacobs Manchester McGee Berggren Richards	} } " 13 }	Finish

Taken from minutes of meeting held March 21.

March 28, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T. M. Edison	J. Holle	A. J. Rhaines
R. Burns.	F. F. Holly	K. G. Berggren
A. A. Manchester	E. W. Haker	H. B. Nielsen
G. C. Harris	J. F. McCarthy	W. R. Kurtze
W. O. Olson	E. M. Richards	G. G. Jarke
W. B. Arrowsmith	C. T. Jacobs	O. Besser
A. W. Cowan	F. J. McGee	R. Kother

The minutes of the meeting of March 21 were approved as issued.

1. DIAL MECHANISM

The color of the scale has been approved.

2. TUNING KNOBS

It was decided that push on knobs would not be used. The Knobs for the 1930 sets will be equipped with large set screws. The sizes of the different knobs are referred to Mr. Walsh.

3. ESCUTCHEON PLATE

The final design of the escutcheon plate is not yet available. Referred to Mr. Walsh and Mr. Richards.

4. 1930 PRODUCTION

Material has been ordered for 1000 cabinets.

Mr. Holly submitted a list of orders placed since March 24.

A second chassis will be turned over to the Production Department this afternoon.

An order will be placed at once for Jensen speakers for 1930 production. Referred to Messrs. Haker, Manchester and Walsh.

Final specifications on the mystery boxes will be available tomorrow morning.

5. POWER PACK

Orders for tools for the power pack base have not yet been placed. Mr. Holly stated that the Purchasing Department will probably place these orders by Tuesday, April 1.

Plug Socket: Mr. McGee submitted a memorandum concerning the connecting plug and plug socket. Mr. Harris will order 25 Jones type plugs and some of these will be used in making up the 50 sets.

6. PRODUCTION MATERIAL

Mr. Haker submitted a list of purchase requisitions placed with the Purchasing Department since March 21. This memorandum is on file.

Drawings and specifications for the 1930 set are not yet complete. Referred to the Production Engineering Department.

7. TYPE LETTERS AND SERIAL NUMBERS FOR NEW SET AND PRINTING ON FUSE BOX OF POWER PACK

No report yet available on this. Referred to Mr. Cowan.

8. PROGRESS ON FIFTY SETS

Mr. Cowan stated that sub-assemblies are still being held up waiting for solder lugs. Mr. Holly stated that part of the solder lugs were shipped today and the balance will be shipped tonight.

9. QUESTIONNAIRE

Mr. McGee and Mr. Arrowsmith submitted a list of questions which are to be used as a basis for criticism of the 1930 set. This list has been turned over to Mr. Theodore Edison.

10. FIRST 5000 SETS

A formal order for the first 5000 sets with breakdown into different types has not yet been turned over to Splitdorf Radio Corporation. Referred to Mr. Walsh.

11. FINISH

The committee decided that all parts for the 1930 chassis and power pack would be copper flashed and coated with bronze lacquer, as the parkerizing process previously suggested acted as an insulator.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, April 4, at 1:30 P.M.

R. Burns.

G.

Copies to :	Messrs. Chas. Edison	F. F. Holly	E. W. Haker
	T. M. Edison	J. Holle	N. A. Hardy
	R. H. Allen	A. J. Rhaines	J. F. McCarthy
	A. J. Walsh	W. B. Arrowsmith	C. F. Schweitzer
	A. A. Manchester	C. S. Williams	G. Eaton
	C. T. Jacobs	E. M. Richards	A. J. Clark
	P. J. McGee	W. Hildebrand	W. R. Kurtze
	G. C. Harris	W. W. Cowan	H. B. Nielsen
	W. O. Olson	C. W. Luhr	R. M. Somers
	G. C. Cosden	C. J. Hirsch	F. Bostock
	R. Kother	J. Greeley	G. J. Clarke
	K. Berggren	R. Burns	E. Trautwein

March 28, 1930

REPORTS TO BE MADE AT THE NEXT RADIO DESIGN MEETING

Mr. Jowan	Paragraph 7	Type letters and serial numbers, etc.
Mr. Jowan	" 8	Progress on 50 sets

Taken from minutes of meeting held March 28.

April 4, 1930

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T. M. Edison	W. W. Cowan	H. B. Nielsen
R. Burns	F. F. Holly	W. R. Kurtze
A. A. Manchester	E. W. Haker	C. G. Clarke
C. T. Jacobs	J. F. McCarthy	O. Besser
G. C. Harris	E. M. Richards	R. Kother
W. O. Olson	W. B. Arrowsmith	C. J. Hirsch
P. J. McGee	A. J. Rhaines	

The minutes of the meeting of March 28 were approved as issued.

1. ESCUTCHEON PLATE

Mr. Richards stated that final drawing is now available and the price of the escutcheon plate as submitted is $15\frac{1}{2}\phi$ each. The American Emblem Company is supplying sketches of the escutcheon plate in two different colors, which will be turned over to Mr. Walsh for his approval. Mr. Richards stated that the escutcheon plates would be here by May 1.

2. 1930 PRODUCTION

A formal order for 1,000 R-6 cabinets has been placed.

Mr. Holly read a list of orders placed since March 31. This memorandum is on file. There are approximately 240 purchase parts on the 1930 set.

A second chassis will be turned over to the Production Department this afternoon.

The following items have not yet been ordered because drawings and specifications are not yet complete:

Filter condenser	-	Complete information will be available Monday, April 7.
Mystery boxes	-	" information will be available today
Volume control	-	" " " " " "
Tone control	-	Not yet finally decided
Shielded cable	-	Complete information will be available Monday
R. F. Coils	-	Will be released Monday
Resistors	-	Will be released Monday
6 Prong Connector	-	Mr. Harris is preparing drawings for estimates

It was decided to purchase 10,000 sets of R.F. coils with clause permitting cancellation of 2nd half of order.

3. CHANGES

It developed that several purchase orders have been held up on account of the large number of changes that have come through recently. Mr. Jacobs stated that from now on, as far as he could anticipate, there would be no serious change in the chassis. The only change likely to occur was in the tone control on the power pack.

4. POWER PACK BASE

The order for tools and for the first 5,000 power pack bases will be placed today with the General Manufacturing Division at a price of 27½¢ each, using auto body seconds, with the provision that tools will be ready in five weeks and that power pack bases will be supplied to Splitdorf Radio Corporation for production six weeks from today.

Mr. Jacobs stated that he is still experimenting with the tone control and tone filter on the power pack.

5. PRODUCTION MATERIAL

The committee felt that the only item likely to tie up production on May 15th was the power pack base, and this question was settled today.

6. TYPE LETTERS AND SERIAL NUMBERS FOR NEW SET AND PRINTING ON FUSE BOX OF POWER PACK

Mr. Cowan submitted a memorandum regarding the printing of serial numbers on the 1930 set, which is on file.

It was decided that a plate bearing the serial number would be attached to the 1930 set. The type of plate and method of mounting, etc. is referred to the Committee on this item - Messrs. Harris, McGee, Arrowsmith, and Rhaines.

Mr. Cowan will supply Mr. Luttropp with samples of fuse box covers to have warning notice printed thereon. If this method of printing works satisfactorily, it will be adopted. Referred to the Committee mentioned above.

7. PROGRESS ON FIFTY SETS

It developed that there are several parts not yet available for the production of fifty sets. Mr. Manchester and Mr. Haker are doing everything possible now to get all the material in.

Mr. McGee will bring some of his men in from the field and early next week, in conjunction with Mr. Harris, they will endeavor to complete six sets which will be used for field tests.

Mr. Jacobs will turn over the first complete 1930 set to Mr. McGee this afternoon.

8. QUESTIONNAIRE

Mr. Edison stated that he had looked over the list of questions as submitted and wished to have additional questions added to note observations on overloading and sensitivity.

April 4, 1930.

- 3 -

9. FIRST 5,000 SETS

Formal order with breakdown on the first 5000 sets is not yet available. Referred to Mr. Walsh.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, April 11, at 1:30 P.M.

R. Burns

G.

Copies to: Messrs.

Chas. Edison	F. E. Holly	E. W. Haker
T. M. Edison	J. Holle	W. A. Hardy
R. H. Allen	A. J. Rhaines	J. F. McCarthy
A. L. Walsh	W. B. Arrowsmith	C. F. Schweitzer
A. A. Manchester	C. S. Williams	G. Eaton
G. T. Jacobs	E. M. Richards	A. J. Clark
P. J. McGee	W. Hildebrand	W. R. Kurtze
G. C. Harris	W. W. Cowan	H. B. Nielsen
W. O. Olson	C. W. Luhr	R. M. Somers
G. C. Cosden ✓	C. J. Hirsch	F. Bostock
R. Kother	J. Greeley	G. J. Clarke
K. Berggren	R. Burns	E. Trautwein

April 4, 1930.

- 4 -

REPORTS TO BE MADE AT THE NEXT RADIO DESIGN MEETING

Mr. Harris	}	Paragraph 6	Type letters and serial numbers, etc.
Mr. McGee			
Mr. Arrowsmith			
Mr. Rhaines			
Mr. Holly	"	2	1930 Production - Additional orders placed
Mr. Cowan	"	7	Progress on fifty sets

Taken from minutes of meeting held April 4.

April 18, 1930

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. R. Burns	F. F. Holly	R. M. Somers
T. M. Edison	J. Holle	C. J. Hirsch
A. A. Manchester	E. W. Haker	W. R. Kurtze
G. C. Harris	A. J. Rhaines	C. J. Clarke
W. O. Olson	E. M. Richards	O. Besser
P. J. McGee	W. B. Arrowsmith	
W. W. Cowan	J. F. McCarthey	

The minutes of the meeting of April 11 were approved as issued.

1. ESCUTCHEON PLATE

Mr. Holly will get in touch with the manufacturer of the escutcheon plates to find out when we will receive the first delivery. Referred to Mr. Holly.

2. TUNING KNOBS

Samples of tuning knobs have been received but were not satisfactory. Mr. Holly will procure more samples at once.

The knobs for the 1929 set can be used for production of the first 50 screen grid sets.

3. DIAL SCALE

The calibration for the dial scale has not yet been determined. Mr. Somers and Mr. Harris will furnish a report on this item at the meeting on Tuesday, Apr. 22.

4. 1930 PRODUCTION

Mr. Holly read a list of orders placed from April 15 to April 17, 1930. This memorandum is on file.

None of the 1930 sets have yet been given bump tests. Mr. Harris will report on this item.

5. PRODUCTION MATERIAL

- Filter condensers - Order has been placed
- Tone control - A committee composed of Messrs. Harris, McGee, Hirsch, Cowan and Arrowsmith has already been appointed to follow up on this item. They will make a report at the Tuesday meeting, Apr. 22.
- Shielded Cable - Specifications will be available today. Order will be turned over to the Purchasing Dept. this afternoon.
- Baffle board - Mr. Richards turned over drawing of the baffle board to Production Engineering Department today.

April 18, 1930

- 2 -

Resistors - Requisition was placed today with the Purchasing Department covering all resistors.

6 Prong Connector - Referred to the committee on this item - Messrs. Harris, McGee, Manchester, Jacobs and Holle - to report on Tuesday, April 22.

R. F. Coils - On Tuesday, April 22, an order will be placed for 1000 sets of R. F. Coils. Any changes that are to be made should be made before this date.

Wire Specifications - Requisition will go to the Purchasing Department this afternoon.

6. ITEMS LIKELY TO TIE UP PRODUCTION ON MAY 15

R. F. Coils - Order will be placed Tuesday, Apr. 22

Cabinets - Mr. Richards will find out the date of first shipment and report

Tone control - Referred to committee on this item

6 Prong Connector - " " " " " " "

Push-Pull Input Transformer - It was decided that the present ratio of 4 to 1 on the push-pull input transformer would be changed to either 5 to 1 or 6 to 1. Mr. Harris is now making tests on this item and if these transformers are found satisfactory, specifications will be issued at once.

7. CHANGES CONTEMPLATED

Mr. Hirsch stated that he did not know of any changes to be made in the construction of the first 1000 sets. It is probable that the design of the R. F. coils will be changed after the first 1000 sets.

8. SERIAL NUMBER PLATE

Mr. Harris is now awaiting further estimates on this item.

9. PHONO SWITCH AND JACKS

Mr. Somers stated that the 1930 set as now designed would give satisfactory performance in a home with any pick up; however, it would give more satisfactory results if an Edison pick up were used. Referred to Mr. McGee to investigate.

10. SPEAKERS

It was decided that the first 4100 Jensen speakers now on order would have the large frame. Referred to Mr. Haker.

11. PROGRESS ON FIFTY SETS

It was decided that 12 screen grid sets will be completed at once using the 5 to 1 push pull input transformer as used on the 1929 set.

Mr. Holle will have the chassis and power packs built for these 12 sets.

April 18, 1930

- 3 -

Mr. Rhaines and Mr. Cowan will be responsible for the testing of these 12 sets, which will probably be done on Monday, April 21.

Mr. Manchester will have 12 R-5 cabinets in shooks transferred from Silver Lake to West Orange where the chassis and power packs will be installed and tested.

The location where tests on these 12 sets will be conducted will be determined at the Tuesday meeting, April 22.

The remaining experimental sets will be equipped with the latest type audio transformer. Mr. Holly will order laminations for 75 audio transformers today. Mr. Harris will furnish specifications for the new type coils. As soon as these specifications are available, Mr. Holly will have coils made and delivered to Splitdorf Radio Corporation as quickly as possible.

The dial panels for the 50 sets were shipped last Wednesday. Referred to Mr. Baker.

Re-working of the escutcheon plates is held up awaiting the dial panels for the 50 sets. Referred to Messrs. Richards, Baker, and Olson.

Mr. Burns will procure order for re-working R-5 cabinets to accommodate the 1930 chassis and power packs.

Mr. McGee has reported on the field trip to Williamsport, Pa. Apparently the new set performs well in Williamsport. Mr. Harris reported that the new set performed well in Easton, Pa. also.

12. QUESTIONNAIRE

Mr. McGee is now completing the questionnaire and will have twelve complete sets of questions ready by Tuesday, April 23.

13. START PRODUCTION MAY 15

There seems to be no reason why production should not be started by Splitdorf Radio Corporation on May 15, 1930 as planned.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, April 25, at 1:30 P.M. please be on time.

R. Burns

April 18, 1930

REPORTS TO BE MADE AT THE NEXT RADIO DESIGN MEETING

Mr. Holly	Paragraph 4	1930 Production - Additional Orders Placed
Mr. Harris	" 4	1930 Production - Bump Tests
Mr. Cowan	" 11	Progress on 50 Sets

reports to be made at
REPORTS TO BE MADE AT MEETING, TUESDAY, APR. 22

Mr. Somers } Mr. Harris }	Paragraph 3	Wial Scale -
Mr. Harris } Mr. McGee } Mr. Hirsch } Mr. Cowan } Mr. Arrowsmith }	" 5	Production Material - Tone Control
Mr. Harris } Mr. McGee } Mr. Jacobs } Mr. Manchester } Mr. Holle }	" 5	Production Material - 6 Prong Connector
Mr. McGee	" 12	Questionnaire

Copies to: Messrs.

Chas. Edison	F. P. Holly	E. W. Baker
T. M. Edison	J. Holle	W. A. Hardy
R. H. Allen	A. J. Rhaines	J. F. McCarthey
A. L. Walsh	W. B. Arrowsmith	C. F. Schweitzer
A. A. Manchester	C. S. Williams	G. Eaton
G. T. Jacobs	E. M. Richards	A. J. Clark
P. J. McGee	W. Hildebrand	W. R. Kurtze
G. C. Harris	W. W. Cowan	H. B. Nielsen
W. O. Olson	C. W. Luhr	R. M. Somers
G. C. Cosden ✓	G. J. Hirsch	F. Bostock
R. Kother	J. Greeley	G. J. Clarke
K. Berggren	R. Burns	E. Trautwein

April 25, 1930

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T. M. Edison	E. W. Haker	C. J. Clarke
R. Burns	J. Holle	R. Kother
A. A. Manchester	A. J. Rhaines	O. Besser
G. C. Harris	W. B. Arrowsmith	
W. O. Olson	J. F. McCarthy	
P. J. McGee	C. T. Jacobs	
F. F. Holly	G. J. Hirsch	

The minutes of meeting of April 18 were approved as issued.

1. ESCUTCHEON PLATE

Mr. Holly stated that we will probably receive 60 or 70 escutcheon plates on Monday, April 28.

2. TUNING KNOBS

Mr. Holly reported that samples are now being shipped to us by air mail and will probably be here by Monday, April 28. If samples are approved immediately, we will receive tuning knobs for production about May 5.

3. DIAL SCALE

Four of the new screen grid sets now ready to go to the field are to be turned over to Mr. Jacobs this afternoon, and he and Mr. Harris will complete the work on the calibration of the dial scale so that drawings may be completed on Monday, April 28.

4. 1930 PRODUCTION

Mr. Holly read a list of orders placed from April 22 to April 24, inclusive. This memorandum is on file.

It was decided to change the location of the holes in the dog houses and the compensating screws in the two gang condensers to facilitate adjustment of the compensating screws on the condensers. Mr. Harris will put through the necessary changes to take care of the dog houses and Mr. Jacobs will arrange for the changes to be made with the condenser manufacturers.

Bump tests on the 1930 set have not yet been made. Referred to Mr. Harris.

5. TOOLS

The General Manufacturing Division report that progress on the tools for the 1930 set is being retarded on account of the large number of changes that have come through.

6. PARTS

Mr. Baker will be responsible for follow up on all parts for production and will report at future meetings items which have been received as they come in.

7. ORDERS NOT PLACED

There are a number of items for which orders have not yet been placed. Referred to the Purchasing Department.

8. PRODUCTION MATERIAL

Tone control - The design of the tone control has been completed and parts have been ordered.

Shielded cable - The Purchasing Department is still waiting for bids before placing orders.

Baffle Board - Drawings will be turned over to the Purchasing Department this afternoon. It was decided that either Insulite or Masonite material would be satisfactory for the baffle board. It was also decided that the baffle board would be fastened at the ends. Referred to Mr. Harris to put through change.

R. F. coils - All the R. F. coils for the first 1000 sets have been ordered.

Wire - Orders for wire will be placed tomorrow.

6 Prong Connector - A committee composed of Messrs. Harris, McGee, Manchester, Jacobs and Holle has already been appointed to report on the performance of the Eby type connector and socket and to make such recommendations as are necessary so that a satisfactory connector can be adopted for the production of the 1930 set. 1000 Eby sockets and connectors have already been ordered for the first 1000 screen grid sets.

9. ITEMS LIKELY TO TIE UP PRODUCTION

Cabinets - Mr. Richards will report on the date of the first shipment of cabinets.

Push-Pull Transformer - Mr. Harris expects to receive final samples today to make further tests. Orders for push-pull transformers are held up awaiting final specifications. Referred to Engineering Department.

10. SERIAL NUMBER PLATES

The serial number plates for the 1930 set have been ordered.

11. REPORT ON FIFTY SETS

Seven sets are now ready to go to the field. Three of these are to be installed in cabinets this afternoon and will be shipped to the West Coast tomorrow. Referred to Messrs. Manchester, Harris, and McGee. The other four are to be turned over to Mr. Jacobs for the calibration of the dial scale. As soon as Mr. Jacobs has finished.

April 25, 1930

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with these four sets, they will be turned over to members of the committee, with questionnaire, for field tests. Mr. Shearman will arrange to transport these sets to the different locations and have them returned after field tests have been completed. Mr. Burns will turn over a questionnaire to each member who takes one of these sets out for field tests.

Additional sets will be sent out on consignment to the different members of the committee for field tests as these sets become available.

Mr. Rhaines asked that eight new sets be assigned to the Inspection Department for the purpose of building test equipment, etc.

It is expected that twelve additional sets will be completed early next week.

12. QUESTIONNAIRE

Mr. McGee submitted a copy of the questionnaire which is on file.

13. ASSEMBLY DRAWINGS

Mr. Manchester submitted a memorandum asking for a number of assembly drawings. This memorandum has been turned over to Mr. Harris who will endeavor to make up these assembly drawings as quickly as possible.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, May 2, at 1:30 P.M. Please be on time.

R. Burns .

G.

Copies to: Messrs. Chas. Edison
T. M. Edison
R. H. Allen
A. L. Walsh
A. A. Manchester
C. T. Jacobs
P. J. McGee
G. C. Harris
W. O. Olson
G. C. Gosden ✓
R. Kother
K. Berggren
F. F. Holly
J. Holle
A. J. Rhaines
W. B. Arrowsmith
C. S. Williams
E. M. Richards
W. Hildebrand
W. W. Cowan
C. W. Luhr
C. J. Hirsch
J. Greeley
R. Burns
E. W. Baker
W. A. Hardy
J. F. McCarthey
G. J. Schweitzer
G. Eaton
A. J. Clark
W. R. Kurtze
H. B. Nielsen
R. M. Somers
F. Bostock
C. J. Clarke
E. Trautwein

April 25, 1930.

- 4 -

REPORTS TO BE MADE AT THE NEXT RADIO DESIGN MEETING

Mr. Holly	Paragraph 4	1930 Production - Addition al Orders Placed
Mr. Baker	" 6	Parts
Mr. Cowan	" 11	Report on 50 sets
Mr. Harris	" 9	Push-Pull Transformer

Taken from minutes of meeting held April 25.

May 2, 1930

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T.M. Edison	E.W. Baker	A.J. Clark
R. Burns	A.J. Rhaines	H.B. Nielsen
A.A. Manchester	W.B. Arrowsmith	C.J. Clarke
G.C. Harris	J.F. McCarthy	W.R. Kurtze
W.O. Olson	C.J. Hirsch	R. Kother
C.T. Jacobs	R.M. Somers	O. Besser
P.J. McGee	W.W. Cowan	
F.F. Holly	E.M. Richards	
J. Holle	G.C. Gosden	

The minutes of meeting of April 25 were approved as issued.

1. ESCUTCHEON PLATE

Samples of the 1930 escutcheon plate have been received but were not satisfactory, because the copyright name "Edison" was not properly engraved. Mr. Richards stated that new samples will be here in a few days. Mr. Richards, Mr. Harris, and Mr. Hardy will approve the new samples as soon as they are received as Mr. Walsh will probably be absent.

2. TUNING KNOBS.

Mr. Holly reported we will receive our first shipment of tuning knobs next week.

3. DIAL SCALE

The specifications on the dial scale are now complete and the manufacturers are going ahead with production. The first samples will be ready for approval on Wednesday, May 7.

4. 1930 PRODUCTION

Mr. Holly submitted a list of production orders placed from April 29 to May 1, inclusive. This memorandum is on file.

Copies of purchase orders have not yet been received by Splitdorf Radio Corporation for the following items - referred to Mr. Clark:

Part #200047 Eyelet - To be purchased today
200048 " " " "
200292 R-7 Baffle Board - Waiting for bids
200423 R-6 Cabinet - Waiting for specifications. Referred to Messrs. Harris and Richards.
200424 Baffle board - Waiting for revised drawings. Referred to Mr. Harris.
200450 Coil Input Transformer - Mr. Holly will place order today
200474 Eyelet - To be ordered today
200901 Washer - " " "
200824 R-7 Cabinet - Waiting for specifications. Referred to Messrs. Harris and Richards.

May 2, 1930

Before parts are ordered for the second schedule, a survey will be made to determine the dates upon which orders must be placed in order to have material here in time for production. Referred to Mr. Haker.

The revised drawings on the dog house for the two gang condenser have gone through. Specifications on the two gang condenser will be ready tomorrow. Referred to Mr. Olson.

After the motor is repaired, bump tests will be made on some of the 1930 sets. Referred to Mr. Harris.

Field tests are now being made on some of the 1930 sets. No report yet available.

Mr. Harris stated that he had tested the sample resistors which had come in and they proved satisfactory. He will make life tests on all resistors and will report at a future meeting.

The following specifications are needed for 1930 production - referred to Mr. Harris:

- #200805 Braided metal tubing - Specifications will probably be available May 5.
- Wire - Promised for May 3.
- Connecting Plug and Socket - Committee still working on this.
- 200423 R-6 Cabinet - Promised for May 15
- 200824 R-7 Cabinet " "
- 200113 Gang condenser - Specifications available Monday, May 5.
- Brown thread - Waiting for samples. Referred to Mr. Haker
- 200760 Spaghetti - Promised for May 6
- 200762 " " "
- 200763 " " "
- 200764 " " "
- 200159 Wood Screw - Specifications will be available today
- 200424 R-6 Baffle Board - Specifications promised for today
- 200832 Fuse Board Cover Stud - Specifications available May 2.
- 200292 R-7 Baffle Board - Specifications promised for today.

Mr. Burns read a list of items which are likely to tie up production on May 15. This list of items has been turned over to Mr. Clark, who will organize a follow-up system sending men to different locations to see that the material needed is delivered to Splitdorf Radio Corporation not later than May 15. Mr. Clark was asked to report at the future committee meetings on the progress being made to get production material into our plant on time. Referred to Mr. Clark.

Mr. Harris submitted a sample of the socket prong which was approved for 1930 production. This socket prong is made of phosphor bronze sheet tinned, with the soldering lug end solder dipped, as Mr. McGee stated that plain phosphor bronze gave trouble in the field

May 2, 1930.

5. TOOLS FOR 1930 PRODUCTION

In checking up on the dates when tools will be ready for 1930 production, it appears that the tools for the power pack base will not be ready until May 10. Referred to Mr. Nielsen.

6. PRODUCTION MATERIAL

Shielded cable - Waiting for samples

R. F. Coils - It was decided that specifications for the remaining 4000 sets of coils on the first schedule should be available by May 10, so that order may be placed on May 15. Referred to Research Engineering Department.

Wire - All wire has been ordered.

Push-pull transformer - Mr. Holly still waiting for bids.

Spaghetti - Specifications now being made up.

Eyelets - To be ordered today.

7. REPORT ON FIFTY SETS

Twelve sets have been made and have been distributed as follows:

3 to West Coast for field test
2 to Mr. McGee (1 in Virginia
(1 being used for instruction book
1 to Mr. Harris for experimental purposes
1 to Mr. Jacobs - Research Department
1 to Mr. Haker for field tests
1 to Mr. Edison "
1 to Mr. Walsh "
1 to Mr. Manchester " (In Mr. McCarthy's home)
1 to Mr. Lorch "

Thirteen more sets are now available. Eleven of these will be retained by Splitdorf Radio Corporation for production purposes and two will be turned over to Mr. Harris for bump tests.

It was decided that six more sets will be completed and sent out for field tests in cabinets.

Mr. Arrowsmith will be responsible for delivery of the sets to different locations for field tests.

8. PARTS RECEIVED FOR NEW SET

Mr. Haker stated that to date seven items have been received in quantities for production.

9. QUESTIONNAIRE

Eleven questionnaires have been sent out so far with the 1930 sets for field tests. Two of these questionnaires have been returned to date.

May 2, 1930.

10. CALIBRATION OF RECEIVER UNIT

This year a jig is to be used to locate the escutcheon plate. Referred to the Production Department to investigate.

11. REVISED PARTS LIST

Mr. Cowan and Mr. Haker are now revising the parts list to bring it up to date, taking care of all changes that have gone through since the last parts list was issued.

12. VARIABLE CONDENSERS

A committee composed of Messrs. McGee, Harris, Olson and Rhaines was appointed to investigate and report on the type of compensating screw to be used with the gang condensers on the 1930 set.

13. COSTS

A complete parts list will be available in a few days so that new costs on the 1930 set can be made out. Referred to Committee on Cost. ?

14. CABINET CONSTRUCTION AND ACOUSTICS

Resonance tests have been made using the new cabinets and Mr. Harris reports these tests have proven satisfactory.

15. TESTS ON DIAL MECHANISM AND LIGHT-O-MATIC CONTACTS

Mr. Harris will make additional tests as soon as dial parts are available.

16. TESTS ON SPEAKER HEADS

Mr. Harris is now making tests on the speaker heads.

17. UNDERWRITERS APPROVAL AND BUMP TEST

Two sets will be turned over to Mr. Harris shortly to be used to secure the Underwriters approval and make necessary bump tests.

18. LICENSE NOTICE

A committee has been appointed to take care of license notice on the 1930 set. Mr. Jacobs stated this work is now going forward.

19. ADVERTISING MATERIAL FOR SHOOKS

Last year on the first production there was a shortage of advertising posters to be pasted on the outside of the shocks for shipment. Referred to the Sales Department to take care of this condition this year.

May 2, 1930.

20. 25-CYCLE AND D.C. PARTS

There will be no 25-cycle or D.C. sets in the first release in the 1930 production.

21. LOUD SPEAKERS

Mr. Harris stated that Jensen Manufacturing Company wanted to increase the price of the speakers on account of being obliged to furnish a copper ring with each speaker. Referred to Mr. Walsh.

22. TONE CONTROL

Mr. Harris stated that it is planned to move the tone control from the power pack base to the chassis base, subject to Mr. Walsh's approval. If this change is satisfactory to Mr. Walsh, Mr. Harris will issue new specifications to take care of the change.

23. PLANT LAYOUT

Approximately \$50,000 has been spent so far in making new plant layout for the Radio Division. This cost includes all work now in progress.

The monorail conveyor has been ordered. All the structural steel for the gain booths has been ordered. A shoot from the third to the second floor of #24 Building has been ordered. A belt for the transformer assembly has not yet been ordered. This item is held up waiting for quotations. Dollies for cabinet assembly lines have not yet been ordered. Hoops and carriages for power pack and chassis have been ordered.

A sketch on the cabinet conveyor from the first to the second floor of Building 21 has not yet been made. Referred to Mr. Schweitzer.

Mr. Walsh has asked for a sketch of the new plant layout. Referred to Mr. Schweitzer.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, May 9, 1930 at 1:30 P.M. Please be on time.

R. Burns.

G.

May 9, 1930

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T.M. Edison	P. J. McGee	W. W. Cowan
R. Burns	F. F. Holly	A. J. Clark
A. A. Manchester	J. Holle	C. J. Clarke
G. C. Harris	E. W. Haker	W. R. Kurtze
W. O. Olson	A. J. Rhaines	R. Kother
C. T. Jacobs	W. B. Arrowsmith	O. Besser

The minutes of meeting of May 2 were approved as issued.

1. ESCUTCHEON PLATE

New samples of the 1930 escutcheon plate are expected today. Referred to Messrs. Harris, Hardy, and Richards.

2. TUNING KNOBS

The first shipment of tuning knobs will reach the plant Monday, May 12.

3. DIAL SCALE

Samples have been received and have been approved. The first shipment of dial scales for production will probably reach the plant on Tuesday, May 13.

4. 1930 PRODUCTION

Mr. Holly read a list of orders placed May 6 to May 8, inclusive. This memorandum is on file.

Orders for the R-6 and R-7 baffle boards will be placed this afternoon.

Resistors for the 1930 set are now being tested. Mr. Harris will report on this item at a future meeting.

The following specifications are still needed:

R. F. coils - Specifications for the remaining 4000 sets of coils on the first 1930 production release will probably be available next Wednesday, May 14. Referred to Mr. Jacobs.

Connecting plug socket - Drawings for latest design are out for estimate.

R-6 and R-7 cabinets - Waiting for Mr. Richards.

Brown thread - Specifications will be available today.

Assembly of slide on transfers - Specifications will be available today.

It is planned to start sub-assemblies for the 1930 set on Monday, May 13.

May 9, 1930

5. REPORT ON FIFTY SETS

Five additional 1930 sets have been sent out in the last few days for field tests as follows: 1 to Cleveland; 1 to Cincinnati; 1 to Chicago; 1 to Rochester; 1 to Blackman's in New York City.

6. REPORT ON NEW SETS

Mr. McGee submitted communications from Saginaw, Mich. and Los Angeles, Cal., in which it was stated that the 1930 sets should have more sensitivity and more selectivity. Field tests from Mr. Lorch indicate that the pick-up between 550 and 760 K.C. & 1350 & 1500 K.C. should be considerably increased. Referred to Mr. Jacobs.

7. PARTS RECEIVED FOR NEW SETS

Approximately 50 items have been received in quantities for production of the 1930 set.

8. REVISED PARTS LIST

Mr. Harris is now revising the parts list to take care of all changes that have recently been put through, and stated that a complete parts list will probably be available about May 15.

9. VARIABLE CONDENSERS

Bump tests have been made to determine the effect on the compensator screws of the 1930 set. To date it appears that the compensator screws do not change their position after having been put through severe tests. Mr. Harris will make further bump tests in a manner as outlined by Mr. Theodore Edison, and after the tests have been made the capacities of the gang condensers will be accurately measured to find out if any change has taken place, in addition to checking up on the compensating screws.

10. TESTS ON PARTS FOR 1930 SET

Mr. Harris was asked to make further tests on those items which gave trouble in the field on the 1929 set. He was asked to pay particular attention to tests on dial mechanism and Light-O-Matic contacts, speaker heads, and power transformers.

In case trouble develops with any part of the 1930 set, it was decided that the responsibility for the design of the set as a unit will rest entirely with the Committee on Design, and the responsibility for the failure of any part of the set will rest with the sub-committee on the particular item in question.

May 9, 1930

11 UNDERWRITERS APPROVAL

Mr. Harris is still working on a 1930 set getting it ready for the Underwriters in order to secure approval.

12. BUMP TEST

Mr. Harris stated that the first receiver unit put through bump tests lost its sensitivity due to the fact that the condensers got out of line.

The mystery boxes on this particular set in question have not yet been inspected to see if the filling became loose. Referred to Mr. Harris for report.

13. LICENSE NOTICE

Mr. Jacobs is now preparing the license notice for the 1930 set. He will report on this at a future meeting.

14. tone control

The tone control has been located on the chassis of the 1930 set.

15. DESIGN CHANGES AS SUGGESTED BY QUESTIONNAIRES

(1) Use improved mechanical mounting for local tone resistor. Referred to Mr. Harris.

(2) Use Jones plug for first production. Referred to committee on this item.

(3) Durham resistors do not hold up under heavy current. Referred to Mr. Harris.

(4) Stranded wire not properly in place - loose strands cause shorts. Referred to Mr. Manchester.

(5) Hum adjuster too close to 245 sockets - Note: Size of hum adjuster is being reduced.

(6) It was necessary to compensate the sets sent to the field to get good results. Referred to committee on compensating screws.

(7) Solid couplings allow slip on shaft. Referred to Mr. Harris.

16. REPORT ON THE FOLLOW UP OF MATERIAL

Mr. McCarthy, who has been engaged during the past few days in following up material in the New England territory, is now returning to the plant to report.

Mr. Haker stated that the item from Splitdorf Electrical Company in Newark which is most likely to tie us up on production is the dial die casting. Mr. Haker is now following up on this item.

Mr. Haker submitted a list of items which were scheduled for delivery from May 1 to May 7, and which have not yet been received. This list contains approximately 170 items. Mr. Clark, who is now following up on these items, stated that a great deal of this material is now on the way to our plant.

May 9, 1930

It was brought out that sample of Part #200382 which was mailed to us by the Globe Manufacturing Co. had been lost. The Post Office authorities showed that this sample was delivered to our plant and apparently has been lost here. The question of delivery of samples of material has been drawn to the attention of Mr. Wilkerson and Mr. Brennan.

17. PLANT LAYOUT

Mr. Rhaines asked that the gain test booths and power pack test booths on the second floor of Building 24 be installed as quickly as possible. As it now stands, this work is going forward very slowly. Referred to Messrs. Schweitzer and Eaton.

Mr. Kurtze asked that the joints of the screen on the gain booths be soldered. It was brought out that galvanized iron can be used instead of copper screen to shield gain booths. Referred to Mr. Manchester.

18. CHANGE NOTICES

Mr. Rhaines asked that the system of taking care of engineering changes on the 1929 set be put into operation on the 1930 set as soon as possible. Referred to Mr. Harris.

19. D.C. SETS

Mr. Edison stated that on some of the D.C. sets of present production, the "C" bias was incorrectly connected. Mr. Kurtze stated that this error was difficult to observe in production as the dark green tracer in the wire did not show up very well. Mr. Harris is putting through specifications to see that sets are wired correctly.

20. FINISH

It was decided that the Splitdorf Electrical Company will spray the filter can for production. The Splitdorf Electrical Company will spray the mystery boxes until such time as Splitdorf Radio Corporation gets the spray room installed on the fourth floor of Building 24. Mr. Edison asked that most of the spraying be done in the General Manufacturing Division in order to eliminate fire hazard in Building 24.

The Fire Protection and Insurance Department have given their permission for the installation of a small spray booth in the north-east corner of Building 24. This spray booth will be used for finishing the mystery boxes and touching up such items as are damaged in handling.

Mr. McGee asked that a small spray booth be built on the 5th floor of Building 24 in the Customer's Repair Department. This question is being referred to the Fire Protection and Insurance Department.

May 9, 1930.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, May 16, at 1:30 P.M. Please be on time.

R. Burns

G.

Copies to Messrs .	Chas. Edison	F. F. Holly	E. W. Haker
	T. M. Edison	J. Holle	W. A. Hardy
	R. H. Allen	A. J. Rhaines	J. F. McCarthey
	A. L. Walsh	W. B. Arrowsmith	C. F. Schweitzer
	A. A. Manchester	C. S. Williams	G. Eaton
	C. T. Jacobs	A. M. Richards	A. J. Clark
	P. J. McGee	J. Hildebrand	W. R. Kurtze
	G. C. Harris	W. W. Cowan	H. B. Nielsen
	W. O. Olson	C. W. Luhr	R. M. Somers
	G. C. Cosden ✓	C. J. Hirsch	F. Bostock
	R. Kother	J. Greeley	C. J. Clarke
K. Berggren	R. Burns	E. Trautwein	

REPORTS TO BE MADE AT NEXT RADIO DESIGN MEETING

Mr. Holly	Paragraph 4	Additional orders placed
Mr. Haker	" 7	Parts received for new set
Mr. Harris	" 12	Bump test - mystery boxes
Mr. Jacobs	" 13	License notice
Mr. A. J. Clark	" 16	Report on follow up of materia

Taken from the minutes of meeting of May 9.

May 16, 1930

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T. M. Edison	F. F. Holly	E. M. Richards
A. Burns	J. Holle	J. F. McCarthy
A. A. Manchester	E. W. Haker	C. H. Hirsch
G. C. Harris	W. B. Arrowsmith	R. M. Somers
W. O. Olson	W. W. Cowan	G. C. Cosden
C. T. Jacobs	W. A. Kurtze	O. Besser
P. J. McGee	R. Kother	

The minutes of meeting of May 9 were approved as issued.

1. ESCUTCHEON PLATE

Mr. Holly reported that 40 escutcheon plates were shipped yesterday and 200 more will be shipped today.

2. TUNING KNOBS

Two shipments of tuning knobs have been received and are now undergoing test.

3. DIAL SCALE

600 dial scales have been received, and while they were not entirely according to specifications they can be used.

4. 1930 PRODUCTION

Baffle boards - Mr. Holly stated that baffle boards will be delivered to us sometime between May 23 and May 26.

Mr. Harris is making further tests on resistors. He will report on these tests at a future meeting.

It was decided to order 4000 sets of R. F. Coils similar in design to the sets of coils to be used on the first 1000 screen grid sets.

No report yet available on the connecting plug socket.

Drawings for the R-6 and R-7 cabinets are not yet available. Mr. Richards stated these drawings will be completed as soon as the cabinets are received in the plant. The first carload of R-6 cabinets will be shipped from Wisconsin tomorrow and a carload of R-7's will be shipped on Monday.

Specifications for the assembly of the slide on transfer are now available.

Only four sub-assemblies have been started for the 1930 set. Sub-assemblies are held up on account of lack of material. Referred to the Purchasing Department.

Mr. Harris was asked to issue specifications and part numbers for the following items: Instruction book; license notices; advertising

May 16, 1930

stickers; packing material, nails, tacks, etc.

Mr. McGee stated that instruction books will probably not be ready for five or six weeks.

5. REPORT ON FIFTY SETS

A summary of tests made to date indicate the superiority in selectivity, tone and sensitivity up to 1000 K.C. of the 1930 set. Above 1000 K.C., the 1929 job is more sensitive.

On the Williamsport, Pa. test, Mr. McGee logged 51 stations in one evening. The average number of stations logged by testers on the 1930 set was 33 on each test made.

Reports from Chicago, Kansas City and Rochester indicate that the samples sent to those areas were not up to standard. Recently it has been found that the 3500 ohm resistor in the power pack is incorrect in value in many of the sample sets causing very low plate voltages on the screen grid tubes. An investigation will be made to determine whether these resistors have gone bad in the sets or whether they were initially of an incorrect value. Mr. Harris obtained six "3500 ohm" resistors from stock that had never been used and measured their values. They were 5900, 6100, 6300, 12000, 6000 and 12000.

It was decided to recall from the field all test sets that are not performing satisfactorily and make a thorough investigation of these sets when they return to our plant, to find out why they do not perform. As test sets are returned from the field, Mr. McGee will notify the Production Department and the Engineering Department so that all test sets returned may be carefully examined.

It was decided that sets which are returned to the plant will be changed to conform with all revised specifications for the 1930 set. As soon as additional sets are available, they will be sent to the field properly installed in 1930 cabinets and packed in order to make a thorough investigation of the performance of these sets together with the method of packing.

Mr. McGee was asked to have some of his service men continue making field tests in order to determine if the electrical characteristics of the sets are satisfactory.

6. REVISED PARTS LIST

Mr. Harris stated he is now working on the revised parts list for the 1930 set and will probably have it completed by May 23.

7. TEST ON PARTS FOR 1930 SET

Variable condensers - Mr. Harris is now working on this item and will submit a written report later.

Dial mechanism and Light-O-Matic contact - Mr. Harris stated that he had a set now undergoing test and that so far the dial mechanism had operated satisfactorily 17,000 times.

May 16, 1930.

Mr. Harris reported that he made an inspection of Mr. Walsh's 1930 set. He found that the L-O-M contact on this particular set was not according to specifications. When the L-O-M contact pin was changed, it was found that the set performed satisfactorily.

Speaker heads - There are two speaker heads now undergoing test in the Product Engineering Department.

Power transformers - No additional tests have been made on power transformers to date other than field tests and other normal operating tests.

Bump tests - Mr. Harris stated that the filling in the detector unit mystery box became loose during one of the recent bump tests, as there was not sufficient wax in the can to hold the filling firmly in place.

8. UNDERWRITERS APPROVAL

As some of the parts used to make a complete 1930 model are not yet available, Mr. Harris has been unable to finish one complete 1930 model in order to secure Underwriters' approval.

9. LICENSE NOTICE

Mr. Jacobs stated that the work on the license notice for the 1930 set is held up awaiting information from Hazeltine and R.C.A.

10. tone control

The tone control has finally been located on the front panel. Drawings and specifications showing this change have already been put through and Mr. Walsh's set has been changed over to conform with the revised specifications.

11. REPORT ON FOLLOW UP OF MATERIAL

Mr. Baker submitted a list of 73 items which should have been here on May 15 for production and are not yet available.

Mr. Edison asked that a check up be made on these items. He suggested that the Purchasing Department secure the shipping papers on each item before accepting as final the promises of the different manufacturers. On those items where sufficient evidence was lacking to show that they were actually in transit, he suggested that men be sent to the different plants to find out why these items were not in transit. At the present time the Splitdorf Radio Corporation is being held up awaiting material to start sub-assemblies. Referred to Purchasing Department.

Mr. McCarthey is still following up on parts from the New England territory and Mr. Baker is contacting with Splitdorf Electrical Company in Newark.

Mr. Edison asked that a complete history be turned over to him on three or four items which the Splitdorf Electrical Company in Newark are making for the production of the 1930 set. Referred to Mr. Holly.

May 16, 1930

On account of the delay in getting in material and the large number of rejections on the material which is being received, together with the standardization of coils and condensers, it looks very much as if the Splitdorf Radio Corporation will make very few sets, if any, this month.

12. CHANGE NOTICES

Mr. Harris is now issuing change notices which will come through officially next Tuesday.

13. COSTS

No revised costs yet available. Referred to committee on costs.

14. MOVE SILVER LAKE CABINET ASSEMBLY TO WEST ORANGE

Mr. Manchester stated that the cabinet assembly at Silver Lake will not be moved over to West Orange until about May 26.

15. SETS FOR RADIO SHOW

Mr. Walsh has asked that 12 complete sets be prepared for the Radio Show. A committee composed of Messrs. Manchester, Harris, Richards, McGee, Holly and J. Holle was appointed to be responsible to see that these sets were prepared on time.

Mr. McCarthy was appointed as key man on all dial parts.

16. SECOND 5000 SETS

Mr. Holly asked that specifications on all parts for the second 5000 sets be prepared as soon as possible. He asked in particular about specifications for R. F. coils so he can go ahead and secure bids on supplying these items.

17. PLANT LAYOUT

The gain booths and power pack test booths on the second floor of Building 24 are now being erected and will probably be all completed by Tuesday, May 20.

It was decided to abandon the spray booth on the fourth floor of Building 24 on account of the fire hazard involved. The Fire Protection and Insurance Department have given their approval to the installation of a small spray booth in the Customer's Repair Department on the fifth floor of Building 24. Referred to Mr. McGee.

There being no further business to come before the committee, the meeting adjourned.

The next meeting will be held in Building #25, May 23, at 1:30 P.M. Please be on time.

G

R. Burns.

May 16, 1930

REPORTS TO BE MADE AT NEXT RADIO DESIGN MEETING

Mr. Harris	Paragraph 7	Tests on Parts for 1930 Set
Mr. Jacobs	" 9	License Notice
Mr. Haker } Mr. Holly } Mr. Clark }	" 11	Report on Follow-up of Material
Mr. Harris	" 12	Change Notices
Messrs. Manchester } Holly } Jacobs } Harris } Haker } Cosden }	" 13	Costs

Taken from minutes of meeting held May 16, 1930

- Copies to: Messrs.
- | | | |
|------------------|------------------|------------------|
| Chas. Edison | F. F. Holly | E. W. Haker |
| T. M. Edison | J. Holle | W. A. Hardy |
| R. H. Allen | A. J. Rhaines | J. F. McCarthey |
| A. L. Walsh | W. B. Arrowsmith | C. F. Schweitzer |
| A. A. Manchester | G. S. Williams | G. Eaton |
| C. T. Jacobs | E. M. Richards | A. J. Clark |
| P. J. McGee | W. Hildebrand | W. R. Kurtze |
| G. C. Harris | W. W. Cowan | H. B. Nielsen |
| W. O. Olson | C. W. Luhr | R. M. Somers |
| G. C. Cosden ✓ | C. J. Hirsch | F. Bostock |
| R. Kother | J. Greeley | O. J. Clarke |
| K. Berggren | R. Burns | E. Trautwein. |

May 23, 1930

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN

Those present at the meeting were:

Messrs. T. M. Edison	F. F. Holly	J. F. McCarthy
R. Burns	J. Holle	G. C. Gosden
A. L. Walsh	E. W. Haker	O. Besser
A. A. Manchester	W. B. Arrowsmith	A. J. Rhaines
G. J. Harris	W. W. Cowan	C. J. Clarke
W. O. Olson	W. R. Kurtze	
O. T. Jacobs	R. Kother	

The minutes of the meeting of May 16 were approved as issued.

1. ESCUTCHEON PLATE

Mr. Holly stated that a shipment of escutcheon plates made according to our specifications was mailed last night.

2. TUNING KNOBS

There are enough tuning knobs on hand to build 400 sets.

3. 1930 PRODUCTION

Baffle boards for 1930 sets have been received but are not according to our specifications. These baffle boards will be changed to meet our specifications.

Connecting plug socket - Power pack: Mr. Harris submitted a sample of a connecting plug and socket designed by Mr. Olson in the Product Engineering Department. It was decided that the 1000 Eby plug sockets now on hand will be used for the production of the first 1000 sets. At the meeting of June 3, 1930 the committee will decide whether to purchase additional Eby sockets or to adopt the Olson plug socket for future production. Mr. Harris estimates that the Olson plug socket would cost approximately 19¢ each in quantities of 10,000. This cost does not include the expense of \$1,800.00 which is necessary to make tools for this particular socket. Before this plug socket can be adapted to the production of the 1930 set, it will be necessary to change the design of the power pack frame. Mr. Walsh asked that additional tests be made on this plug before final decision is made.

Cabinets - The first shipment of 112 R-6 cabinets arrived in the plant May 22. Mr. Walsh stated that these cabinets are not according to specifications and must be changed. He is taking this matter up now with the Wisconsin plant. A shipment of R-7 cabinets, now in transit, will probably be here on next Wednesday.

Only 12 sub-assemblies have been started so far on the 1930 set. The Production Department is held up waiting for material. Referred to Purchasing Department.

Specifications and part numbers have not yet been issued for items listed in the minutes of May 16. Referred to Mr. Harris.

Mr. Manchester stated that he hoped to get some 1930 sets completed by the end of next week.

4. REPORT ON FIFTY SETS

A letter from Mr. Jacobs outlining his findings on the three sets returned from Seattle, Saginaw, and Cleveland was read at the meeting. This letter is on file.

Questionnaire #121 returned to us from Chicago was examined and contents noted. It appears that chassis #1017 performed very satisfactorily in Chicago.

5. TESTS ON PARTS FOR 1930 SET

Mr. Harris is making additional tests on variable condensers, dial mechanism and L-O-M contact, resistors, speaker heads and power transformers.

It was decided to make additional bump tests on chassis, power packs and complete sets installed in shocks. Referred to Mr. Harris for report.

Mr. McGee submitted a memorandum outlining the principal field failures on the 1929 set. Copies of this report will be sent to different members of the committee.

6. REVISED PARTS LIST

Mr. Harris stated that a revised parts list on the receiver unit of the 1930 set was delivered to Mr. Manchester this afternoon.

Revised parts list on the power pack will probably be available next week.

7. UNDERWRITERS APPROVAL

Underwriters approval of the 1930 set has not yet been secured.

8. LICENSE NOTICE

Mr. Jacobs stated that all information for license notice for the 1930 set has been turned over to the Legal Department.

9. REPORT ON FOLLOW UP OF MATERIAL

Mr. Baker stated that the most important items now tying up production are: Three parts from Splitdorf Electrical in Newark; and the following items from the General Manufacturing Division - tub base assembly, front panels, condenser covers, dial bracket, power unit base.

Mr. Rhaines reported that a large quantity of the material being received is not according to specifications and is being rejected. Referred to Purchasing Department.

10. COSTS

Mr. Gosden submitted a memorandum in which he stated that all

May 23, 1930

cost estimates have been turned over to Splitdorf Radio Cost Department for comparison with actual cost figures of the future.

11. FINISH 1929 SETS

The assembly work on all 1929 chassis and power packs is now completed. Sets are still being installed in cabinets at Silver Lake.

12. SETS FOR RADIO SHOW

Mr. Manchester stated that the 12 sets requested by Mr. Walsh are now being prepared for the Radio Show.

13. TUBES

It was brought out that the 1930 set is designed for screen grid tubes having a mutual conductance of 1000 micromhos. An inspection test made in the plant indicated that a shipment of 100 tubes from RCA varied in value from 350 to 920 micromhos. Mr. Cowan stated that of the 100, only 14 were found to be satisfactory for test purposes. It was decided that Mr. Harris will get in touch with one of the RCA tube engineers and find out why it is that the mutual conductance of these tubes vary through such a large range.

Mr. Walsh asked Mr. Rhaines to inspect all screen grid tubes that are received in our plant and to send back those which are not satisfactory for use.

Mr. Harris reported that he had been in touch with Mr. Dumont, Engineer for DeForest Radio Corporation, Passaic, who stated that there would be no difficulty in obtaining screen grid tubes from them having mutual conductance of 1000 micromhos.

It was decided to hold the meeting on each Tuesday at 10:00 A.M. and on each Friday at 2:00 P.M. in Room 412, 4th Floor, Building 25.

There being no further business to come before the committee, the meeting adjourned.

R. Burns

G.

May 23, 1930

REPORTS TO BE MADE AT NEXT RADIO DESIGN MEETING

Mr. Manchester	Paragraph 3	1930 Production
Mr. Harris	" 5	Tests on Parts for 1930 Set.
Mr. Haker) Mr. Holly)	" 9	Report on Follow-up of Material

Taken from minutes of meeting held May 23, 1930.

Copies to: Messrs.

Chas. Edison	F. F. Holly	E. W. Haker
T. M. Edison	J. Holle	W. A. Hardy
R. E. Allen	A. J. Rhaines	J. F. McCarthey
A. L. Walsh	W. B. Arrowsmith	C. F. Schweitze.
A. A. Manchester	C. S. Williams	G. Eaton
C. T. Jacobs	E. H. Richards	A. J. Clark
P. J. McGee	W. Hildebrand	W. R. Kurtze
G. C. Harris	F. W. Cowan	H. B. Nielsen
W. O. Olson	C. W. Luhr	R. M. Somers
G. C. Gosden	C. J. Hirsch	F. Boatock
R. Kother	J. Greeley	G. J. Clarke
K. Berggren	R. Burns	E. Trautwein

NO DESIGN:
June 13, 1930.

MEETING FOR DISCUSSION OF 1930 RADIO DESIGN.

Those present at the meeting were:

Messrs. R. Burns	E. W. Haker	J. F. McCarthy
A. L. Walsh	J. Holle	A. J. Rhaines
A. A. Manchester	W. B. Arrowsmith	
C. T. Jacobs	W. W. Cowan	
G. C. Harris	W. R. Kurtze	
W. O. Olson	R. Kother	
P. J. McGee	C. J. Clarke	

The minutes of the last Friday meeting, held May 23, 1930, were approved as issued.

1. 1930 PRODUCTION

Hum- Mr. Harris submitted a memorandum in which he reported that the cause of some of the hum in the new 1930 set can be traced to irregularly formed laminations furnished by the General Manufacturing Division. This question has been taken up with Mr. E. M. Smith who stated that satisfactory laminations will be supplied from now on. Most of the laminations which have been received from the General Manufacturing Division have had a burr on the edge, which has affected the inductance of the choke coils. Mr. Cowan and Mr. Harris both stated that most of the causes for the hum in the 1930 set have been located and are now being corrected.

Connecting Plug Socket-No report yet available from sub-committee on this item.

Cabinets- Two complete sets in cabinets were shipped yesterday to Cleveland. Two more are being packed today for Detroit, and two more cabinets are expected this afternoon from Silver Lake which will be used for two sets to be shipped to Los Angeles.

Mr. C. J. Clarke of Silver Lake is now working on the six car-loads of cabinets that came in from Wisconsin, altering them to meet our specifications.

No decision has yet been made to place holes in the bottom of the cabinet for the purpose of keeping the different parts in the power pack cooled off. Referred to Mr. Harris.

Mr. McGee asked if the backs of the shocks could be removed in order to place the cabinets in them rather than to take off the front cover of the shocks. The purpose of this change is to leave the balsa on the blocks on the front of the shocks undisturbed. Referred to Mr. Richards.

Mr. Walsh asked what production was expected for June. On account of the number of engineering changes it is difficult to estimate the number of sets that will be produced this month.

June 13, 1930.

2. FIRST SETS -1930.

Mr. Cowan estimates that 25 complete sets will probably be ready to be assembled into cabinets tomorrow;

Mr. McGee stated that sets now coming through are too low in gain. Referred to Mr. Cowan.

3. SENSITIVITY

The remaining 3,000 fourth and fifth R.F. coils for the first production release will not be ordered until after June 17, as Mr. Jacobs stated he did not know whether it would be necessary to change the specifications of these coils or not as yet.

4. TEST ON PARTS

No report yet available on bump tests of sets in shooks.

5. UNDERWRITERS APPROVAL

A complete set which can be used to secure the Underwriters approval has not yet been turned over to Mr. Harris. Referred to Mr. Manchester.

6. INSTRUCTION CARD FOR 1930 SET.

Nothing to report. Referred to Mr. McGee.

7. FOLLOW UP ON MATERIAL

Mr. Rhaines reported that the patent labels which have been received were not according to specifications. Mr. Harris stated that the proper patent labels will be received today.

It was brought out that several of the parts which have been received from the General Manufacturing Division have failed to pass incoming inspection. This question has been taken up with the General Manufacturing Division who have been asked to inspect all material before it is sent to the Radio Manufacturing Division, in accordance with a previous understanding when orders were placed.

Mr. Rhaines reported that there are approximately 600 mystery boxes audio unit from Splitdorf Electrical in incoming inspection, which are being held up because they are not according to specifications.

8. TONE FOR THE 1929 Set

Mr. Walsh asked that an investigation be made to improve the tone of the 1929 set as soon as possible. Referred to Mr. Harris.

June 13, 1930.

9. CHANGES

Mr. Jacobs asked that specifications for the grid leads be changed. Mr. Harris will put through the necessary change on this item. The Production Department will change all sets now under construction to conform with the change as outlined by Mr. Jacobs.

The next Friday meeting will be held on June 20, at 2:00 P.M. ,in Room 412, Bldg. 25. Please be on time.

There being no further business to come before the committee, the meeting adjourned.

R. Burns.

Copies to: Messrs. Chas. Edison F. F. Holly E. W. Haker
 T. M. Edison J. Holle W. A. Hardy.
 R. H. Allen A. J. Rhaines J. F. McCarthy
 A. L. Walsh W. B. Arrowsmith C. F. Schweitzer
 A. A. Manchester C. S. Williams G. Eaton
 G. T. Jacobs E. M. Richards A. J. Clark
 P. J. McGee W. Hildebrand W. R. Kurtze
 G. C. Harris W. W. Cowan. H. B. Nielson
 W. O. Clason C. W. Luhr. R. M. Somers
 G. C. Cosden ✓ C. J. Hirsch F. Bostock
 R. Kother J. Greeley C. J. Clarke
 K. Berggren R. Burns E. Trautwein

June 13, 1930.

REPORTS TO BE MADE AT NEXT RADIO DESIGN MEETING

Mr. Harris }
Mr. McGee }
Mr. Manchester }
Mr. Jacobs }
Mr. Holle }

- Paragraph 1. 1930 Production- Connecting Plug Socket.
- " 3. Sensitivity
- " 4. Test on Parts
- " 6. Instruction Card for 1930 Sets
- " 7. Follow up on material.
- " 8. Tone for 1929 set.

Mr. Jacobs
Mr. Harris.
Mr. McGee
Mr. Haker.
Mr. Harris.

Taken from minutes of meeting hold June 13.

D
1930 Radio

July 28, 1930

RADIO COMMITTEE MEETING MINUTES

Those present at the meeting were: Messrs. R. Burns, A.A. Manchester, A.J. Rhaines, R. Kurtze, J. McCarthy, P.J. McGee, W.O. Olson, E.M. Richards, G.C. Clarke, J. Holle and Lorch.

1. 1929 CABINETS

Mr. McGee pointed out that on inspection he found several of the 1929 sets now in storage have loose shelves and defective doors. He is making a further check to determine the approximate percentage of rejections amongst these 1929 sets.

2. SCREEN GRID LEADS, 1930 SET

Reports from the field indicate that a heavier wire protected with spaghetti should be used for screen grid leads. The dog houses and tube shield cans should be redesigned to better accommodate the screen grid leads. Referred to Engineering Department.

R. Burns.

Copies to Messrs.	Chas. Edison	A. J. Rhaines	E. W. Haker
	T. M. Edison	J. Holle	W. A. Hardy
	R. H. Allen	W. B. Arrowsmith	J. F. McCarthy
	A. L. Walsh	C. S. Williams	A. J. Clark
	A. A. Manchester	E. M. Richards	W. R. Kurtze
	C. T. Jacobs	W. Hildebrand	H. B. Nielsen
	P. J. McGee	W. W. Cowan	F. Bostock
	G. G. Harris	C. W. Luhr	C. J. Clark
	W. O. Olson	J. Greeley	R. Kother
	G. C. Cosden ✓	R. Burns	