

# ***Jackson-Bell Model 6 Radio Analysis***

This document is a collaboration by internet and telephone between Jim Ryan as the set owner and Richard Gray as the documentor.

I purchased this radio from Ricki Glassman in 2017 after her husband, Marvin Glassman, had passed away. Since this is the only Model 6 I have ever seen, I have always been reluctant to disturb its existing condition. Richard's comments about the necessity of proper documentation encouraged me to make the attempt. What follows is the result of our combined efforts.

Jim Ryan - 09/23/2023

**For the images that follow, the comments by Jim Ryan are in blue.**

**Richard Gray's comments are in red.**



The Jackson-Bell model 6 cabinet as purchased in 2017.



Model 6 rear view showing the speaker plug and chassis mounted speaker, licensing plate, and the ground and antenna connectors.

A slightly angled chassis is visible in this photo if examined closely.

The Cabinet appears to be warped. The Speaker wiring is obviously new. The antenna is now tied to the Tuning Capacitor to get more signal from the shorter antenna. This defeats the "volume control".

## Model 6 Disassembly Email To Richard Gray

### Email from Jim Ryan to Richard Gray:

Subject: The Model 6 Orientation  
Date: 31 August, 2023

Richard:

The Model 6 and the Model 8 share many features.

As a side note I believe it is possible (likely) that the consoles advertised as available as a 6-tube or 8-tube model depended on whether it contained a model 6 or 8 chassis. I'll have to go back and look for a different knob alignment for the console. This triangular alignment may not be as easy as the model 8 for a console. Maybe?

The Model 6 is a 6 tube chassis with the following tube compliment:

27, 27, 27 - Right side as seen from the rear.

80, 45, 27 - Left Side.

There are three coils. The R.F. coil sits on top of the chassis. The detector and antenna coil are on the inside of the chassis at a right angle to each other.

The chassis has the same bent-up rail system as the model 8, and there may have been a metal sheet in the bottom at one point. The sheet is no longer present.

There are four holes in the bottom of the cabinet, but only two mounting bolts for the chassis.

The chassis is angled slightly (not aligned parallel to the front of the cabinet). This may have kept the tone control from being turned as intended.

The speaker cone is no longer attached to its supporting ring. The support has fallen apart over time (see photos).

Thanks for your time,

Jim Ryan



Bottom view of model 6 cabinet showing two mounting bolts and two empty holes

One of the first things I noticed in removing the chassis from the cabinet was the similarities between the Model 8 and the Model 6 chassis mountings.



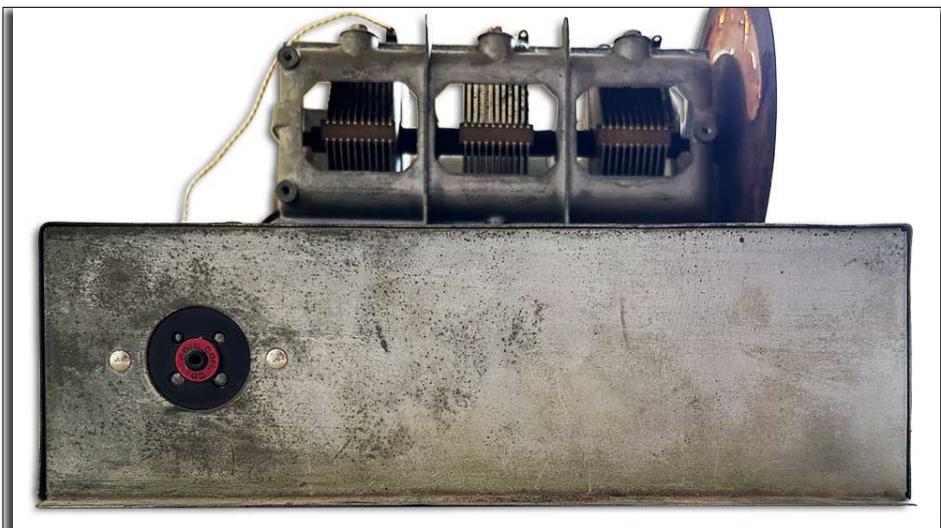
The Model 8 metal pan-and-rail system helps guide and anchor the chassis shown above. It appears that like the Model 8, the Model 6 uses the same system.



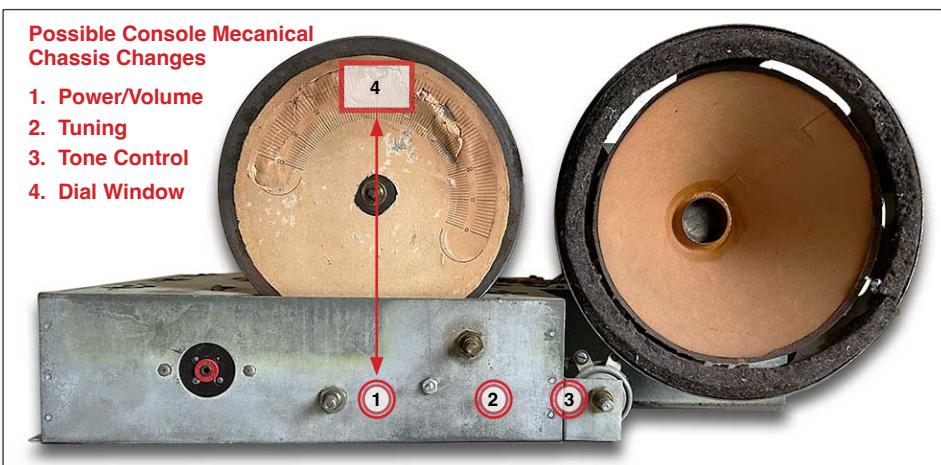
Another view of the metal plate-and-rail system used in the Model 8 and suggested in the Model 6. Traces of glue inside the cabinet and the extra holes in the metal plate are good rail use indicators.

**Two modern mounting bolts hold the chassis in place. The shape of the chassis suggests a metal pan-and-rail system to help secure the chassis.**

**Probably. It looks like this chassis had rails like the model 8.**



The Antenna coil socket for mounting the coils inside of the chassis



Front chassis view showing dial and felt speaker surround damage

**Numbered Indicators:**

Added shapes and arrow are a guess as to how the chassis could be modified to match knob patterns for a console.



Detector coil socket close-up

The internally mounted coil pins are visible in this photo.

A coil plug socket is visible on the outside of the chassis in two places. The antenna coil is on the chassis side opposite of the speaker location. The detector coil plug is on the front of the chassis. These two coils are inside the chassis mounted at 90 degrees relative to one another.

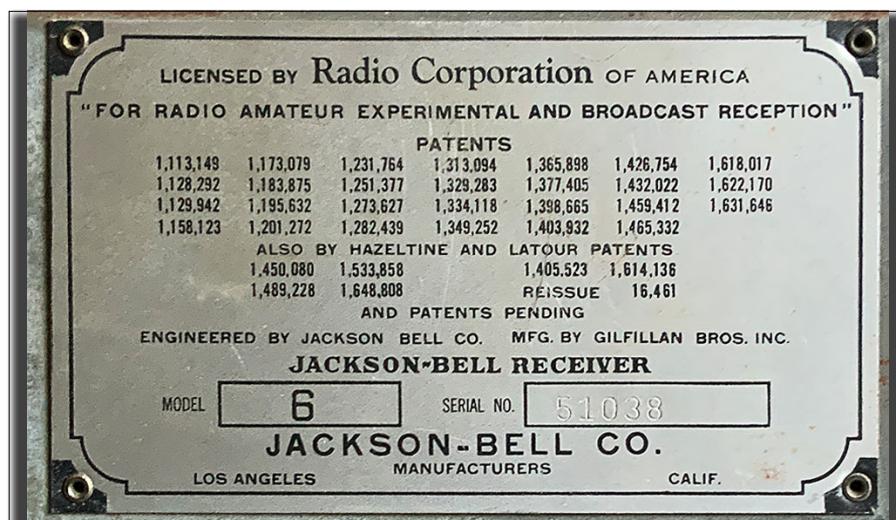


Model 6 R.F. coil close-up.

The R.F. coil is on the top of the chassis next to the tuning capacitor. As viewed from the top, it is on the area furthest from the speaker.

These three positions provide adequate shielding between the three coils.

The image of the front of the chassis also shows that the speaker support ring is no longer present. This early speaker design uses a single voice coil and speaker cone support (spider). It does not require a speaker cone "surround" as a secondary support.

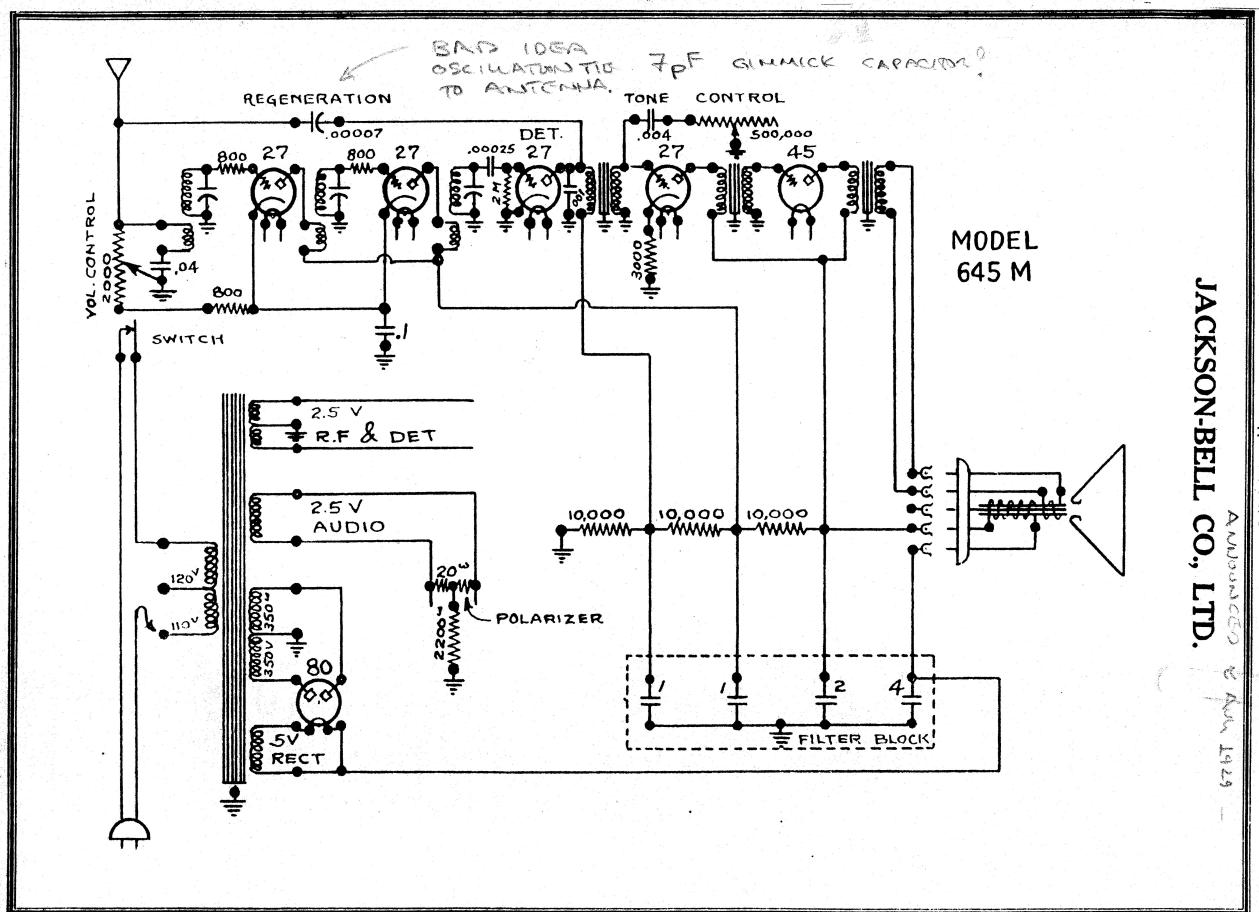


The Model 6 Licensing plate attached to the back of the chassis

License tag Serial No = 51038. That many? doubtful.  
We can assume the Serial Numbers are not consecutive, but somehow encoded. Date, Run Number???

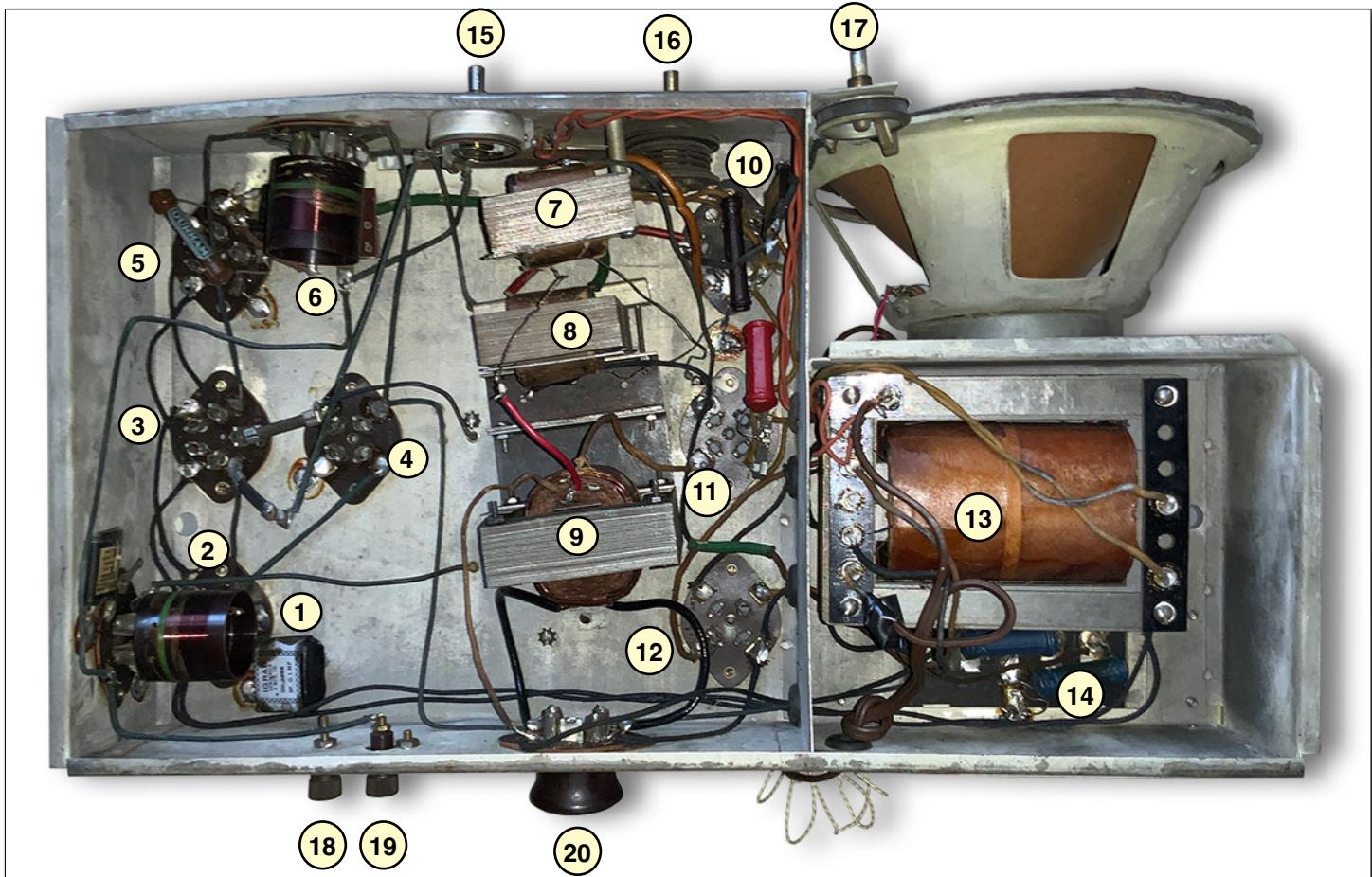


The empty cabinet with the glued in tapestries  
There are knob alignment questions for a 6 tube console version.



Jackson-Bell model 6 schematic with Richard's notes.

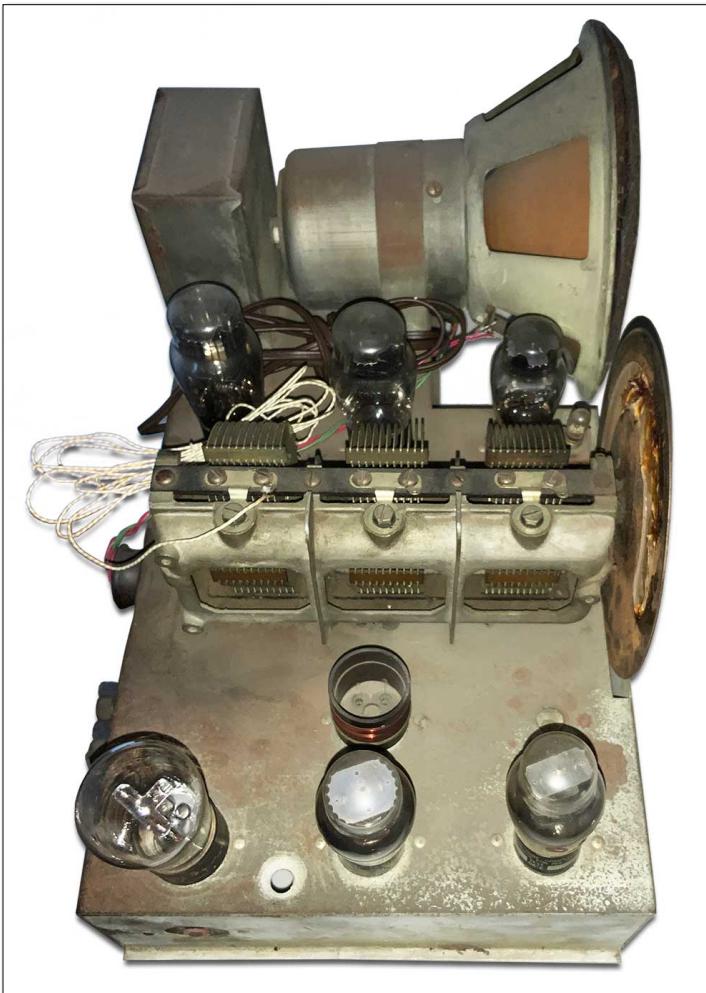
Underside of the chassis showing antenna coil (1), the Detector coil (6) and the R.F. coil socket  
- many feature remind me of the model 8



Model 6 Chassis view from underneath with Richard's component indicators

1. Antenna Coil	11. 45
2. 27 - First R.F. Amp	12. 80
3. 27	13. Power Transformer
4. R.F. Coil Above	14. Capacitor Block Above Chassis
5. 27 Det	15. Volume and Power Switch
6. Detector Coil	16. Tuning
7. Detector Transformer	17. Tone Control
8. Driver Transformer	18. Ground
9. Output Transformer	19. Antenna
10. 27 - A. F. Amp	20. Speaker Plug

Refer to the yellow diagram numbers above to identify the chassis component layout and wiring.  
More information is available using the schematic on the prior page as a reference.



Angled view showing one of the chassis bolt holes, how Marv attached an outside antenna, and the chassis rail.

Note the speaker is attached to the chassis, - not to the cabinet. The R. F. coil is plugged into the chassis socket on top of the chassis.

This chassis is similar to the last version of the model 8. It is believed that the model 6 came after the first version of the model 8.

### Conclusion:

This is the fourth radio produced by Jackson Bell. The license tag indicates that this radio was engineered by Jackson-Bell, and product of Gilfillan Manufacturing. We have found few advertisements for the Model 6 table model, all of which are in 1929 newspapers.

Beginning in late 1929 we see advertisements for the model 8 as a console which were offered in both six-tube and eight-tube versions. The model numbers appear to refer to the number of tubes in the chassis. We believe the above advertisement indicates that the console could be had with either the model 6 or the model 8 chassis installed. There are no 6-tube model 8 chassis.

Richard has offered one possibility in this document where a model 6 or a model 8 chassis could have been what was offered with minor mechanical adjustments to the model 6 chassis (shown on page 3).

If anyone has other information to share on this subject we welcome your input and would of course credit you with that discovery and any photographs you might contribute.

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**Model "8" Specifications**

**CIRCUIT:** Consists of three stages of radio frequency amplification, the second stage consisting of two power tubes arranged in push-pull circuit.

**TUNING SYSTEM:** Consists of four-ganged, straight-line frequency variable condenser, controlled with one dial accurately calibrated kilocycles. Three point suspension mounting.

**SHIELDING:** All component parts of Radio Frequency and Audio Frequency circuits completely shielded, insuring a minimum amount of stray pick-up and interstage coupling.

**TUBES:** Consists of five 227 hester type tubes, two 245 power amplifier and one 230 full wave rectifier.

**POWER SUPPLY:** Operated from any source of current 105 to 135 volts, the power supply being designed to withstand fifty per cent overload without undue heat. Power pack shielded so as to eliminate any AC line pickup.

**PATENTS:** Licensed and manufactured under Radio Corporation of America, LaTour and Hazeline patents.

**PARTS USED:** Only standard and proven parts used throughout, which were selected only after each particular part was subjected to a most rigid test.

### Jackson-Bell model 8 Advertisement

Oakland Tribune - Oakland, California - 12 Sep 1929, Page 26