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United States Patent [19]

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Zennamo, Jr. et al.

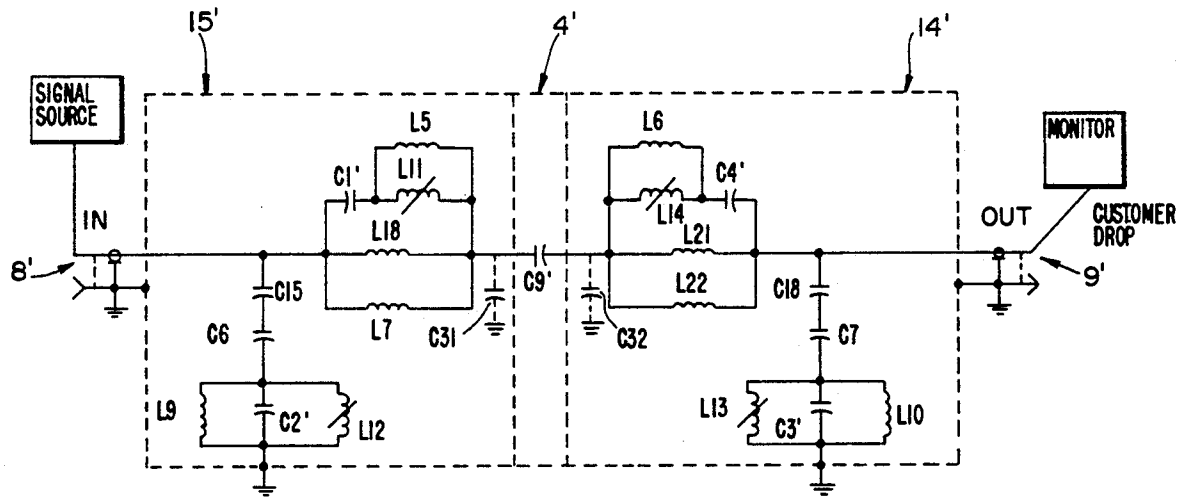
[45] Date of Patent: **Sep. 15, 1992**

- [54] **QUALITY FACTOR IMPROVEMENT FOR FILTER APPLICATIONS**
- [75] Inventors: **Joseph A. Zennamo, Jr., Skaneateles; Gary J. Clark, Constantia, both of N.Y.**
- [73] Assignee: **Eagle Comtronics, Inc., Clay, N.Y.**
- [21] Appl. No.: **707,070**
- [22] Filed: **May 29, 1991**
- [51] Int. Cl.⁵ **H03H 7/00**
- [52] U.S. Cl. **333/175; 333/167; 333/185; 333/12**
- [58] Field of Search **333/175, 167, 168, 185, 333/12, 176, 24 R, 24 C, 177, 178, 179, 180, 181, 182, 183, 184**

- [56] **References Cited**
U.S. PATENT DOCUMENTS
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Primary Examiner—Eugene R. LaRoche
Assistant Examiner—Ali Neyzari
Attorney, Agent, or Firm—Parkhurst, Wendel & Rossi

[57] **ABSTRACT**
A tuned filter having an improved Q is disclosed in which two or more inductors are placed in parallel to increase the net Q relative to a single inductor of the same net inductance and/or two or more capacitors are placed in series to increase the net Q relative to a single capacitor of the same net capacitance to improve the Q of a tuned filter.

11 Claims, 9 Drawing Sheets



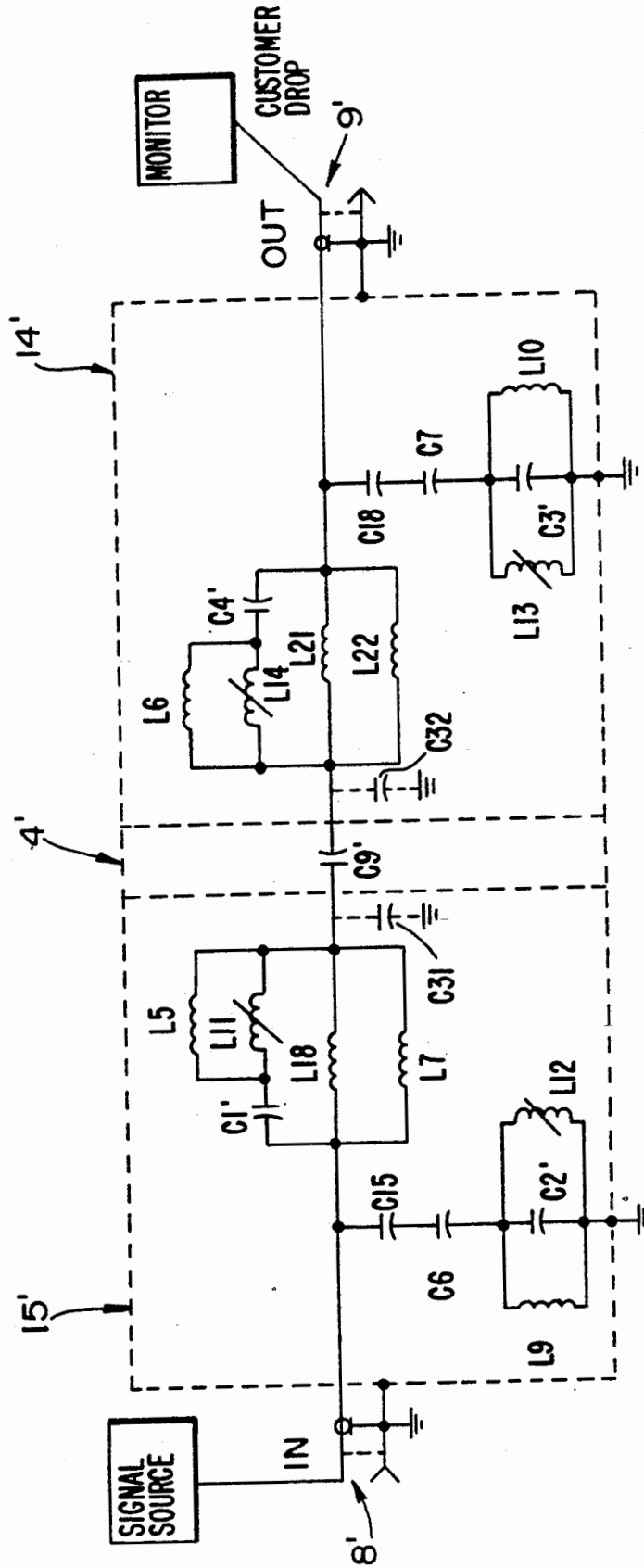


FIG- 1A

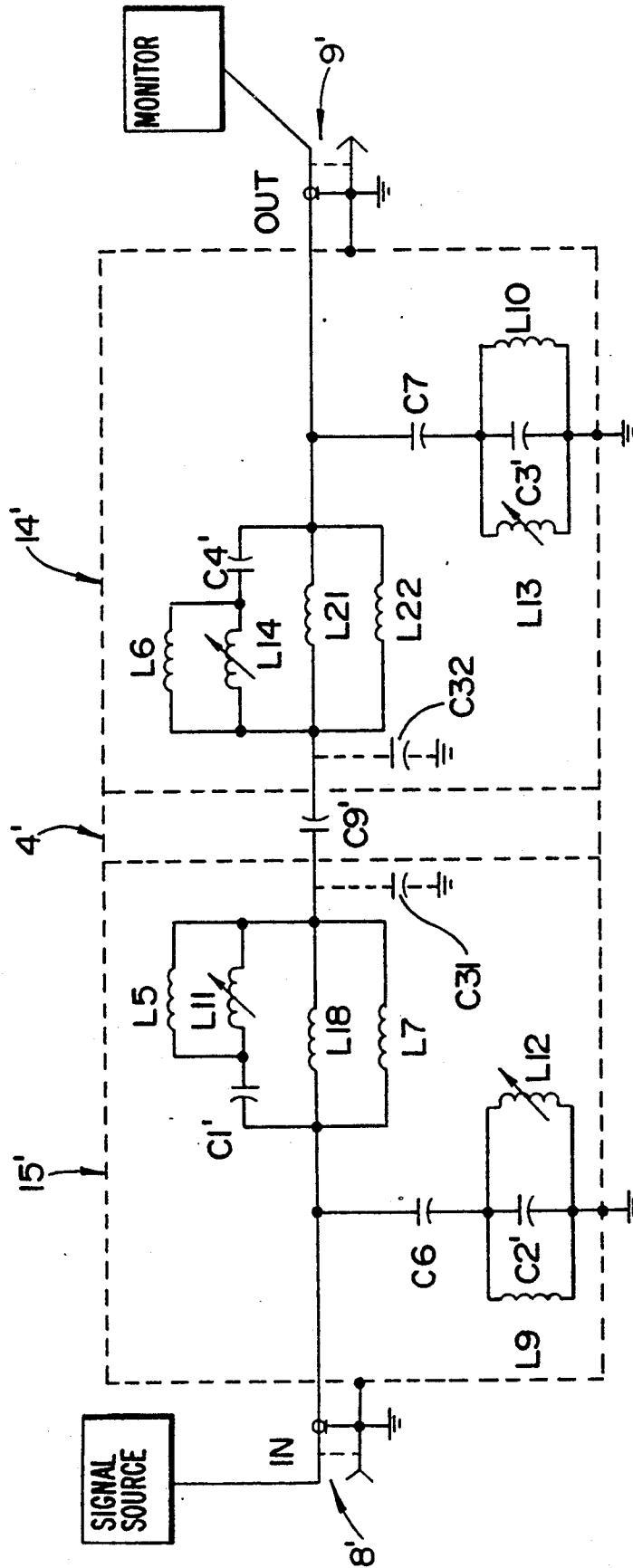


FIG - 1B

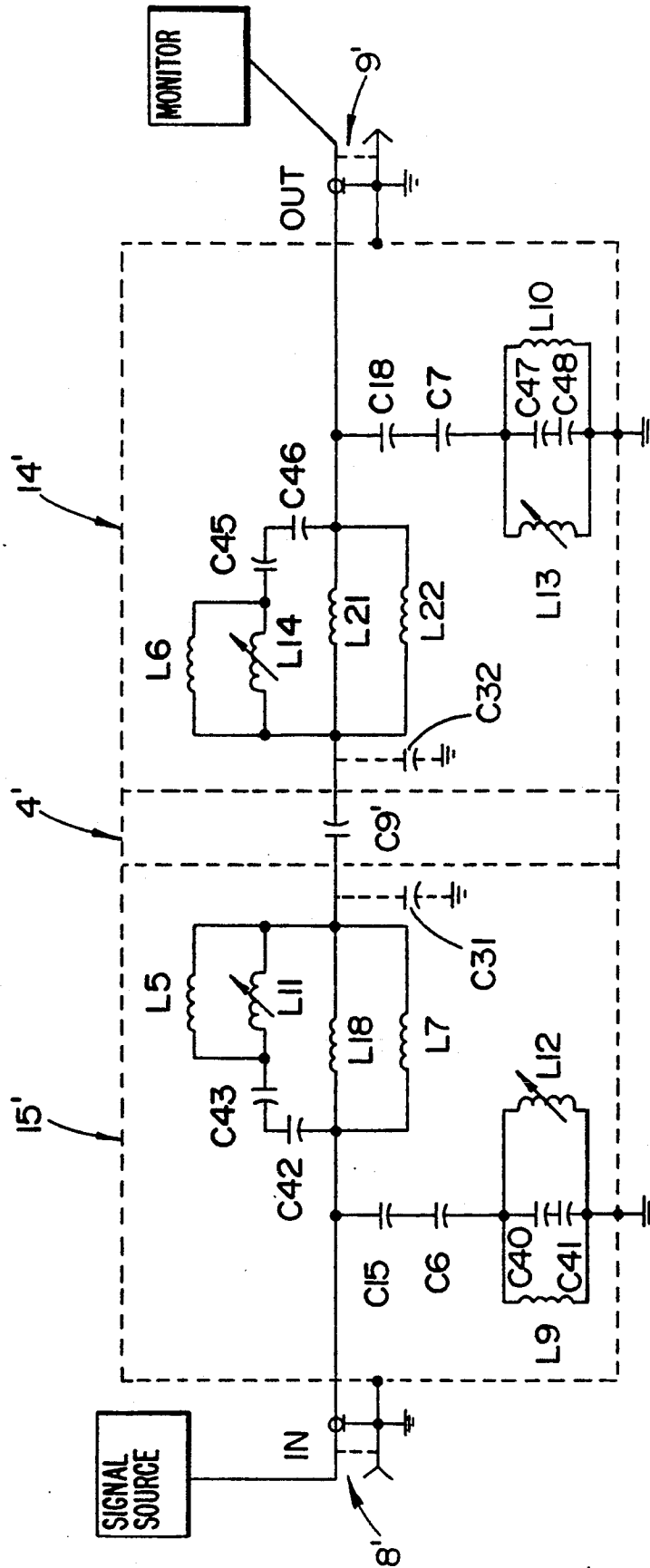


FIG- 1C

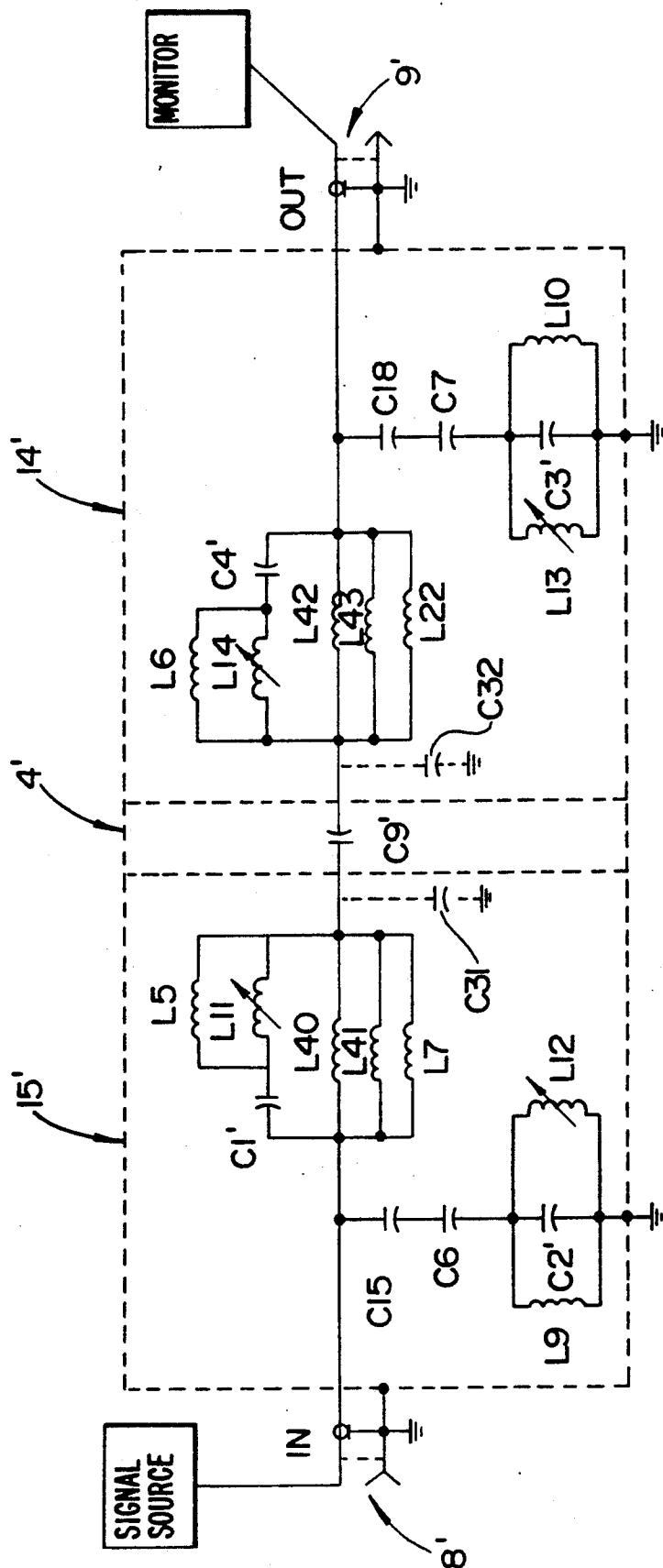


FIG - 1D

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