

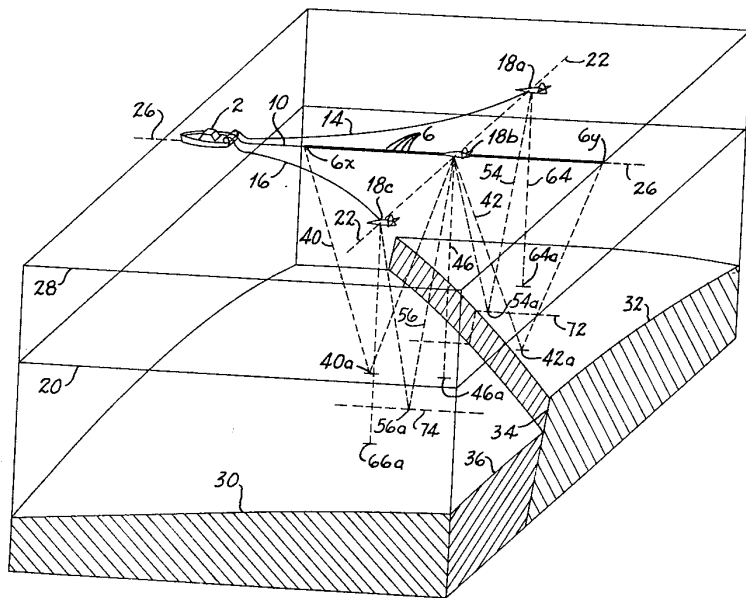
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 18 Whittier St., Cambridge, Mass. 02140
 [21] Appl. No. **875,510**
 [22] Filed **Nov. 10, 1969**
 [45] Patented **May 25, 1971**
 Continuation of application Ser. No. 645,643, June 13, 1967.

3,325,778 6/1967 Ballard 340/7
 3,331,050 7/1967 Kilmer et al. 340/7

Primary Examiner—Richard A. Farley
 Assistant Examiner—Daniel C. Kaufman
 Attorney—Sperry and Zoda

- [54] **MARINE SEISMIC EXPLORATION**
 13 Claims, 13 Drawing Figs.
- [52] U.S. Cl. **340/7PC**,
 114/237, 181/0.5VM, 340/15.5MC
- [51] Int. Cl. **G01v 1/38**
- [50] Field of Search 340/7, 15.5
 MRC; 114/237; 181/5 VM
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UNITED STATES PATENTS
- Re25,204 7/1962 Becker 340/15.5
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ABSTRACT: Continuous marine seismic explorations are carried out by providing echo detecting means with control means for maintaining the echo detecting means in fixed or predetermined positions and at spaced points in two dimensions of a horizontal plane, and by generating echo producing impulses at one or more spaced points located in fixed or predetermined relative positions with respect to each other and in said plane. In this way, a set of records may be obtained which define the seismic interfaces of the prospect under survey in two intersecting vertical planes. Thereafter, by producing successive sets of such records, quadratic surfaces in which the true inclinations of interfaces may be determined over an extended area are obtained in a single traverse thereof. At the same time, the accuracy of the records obtained is materially increased.



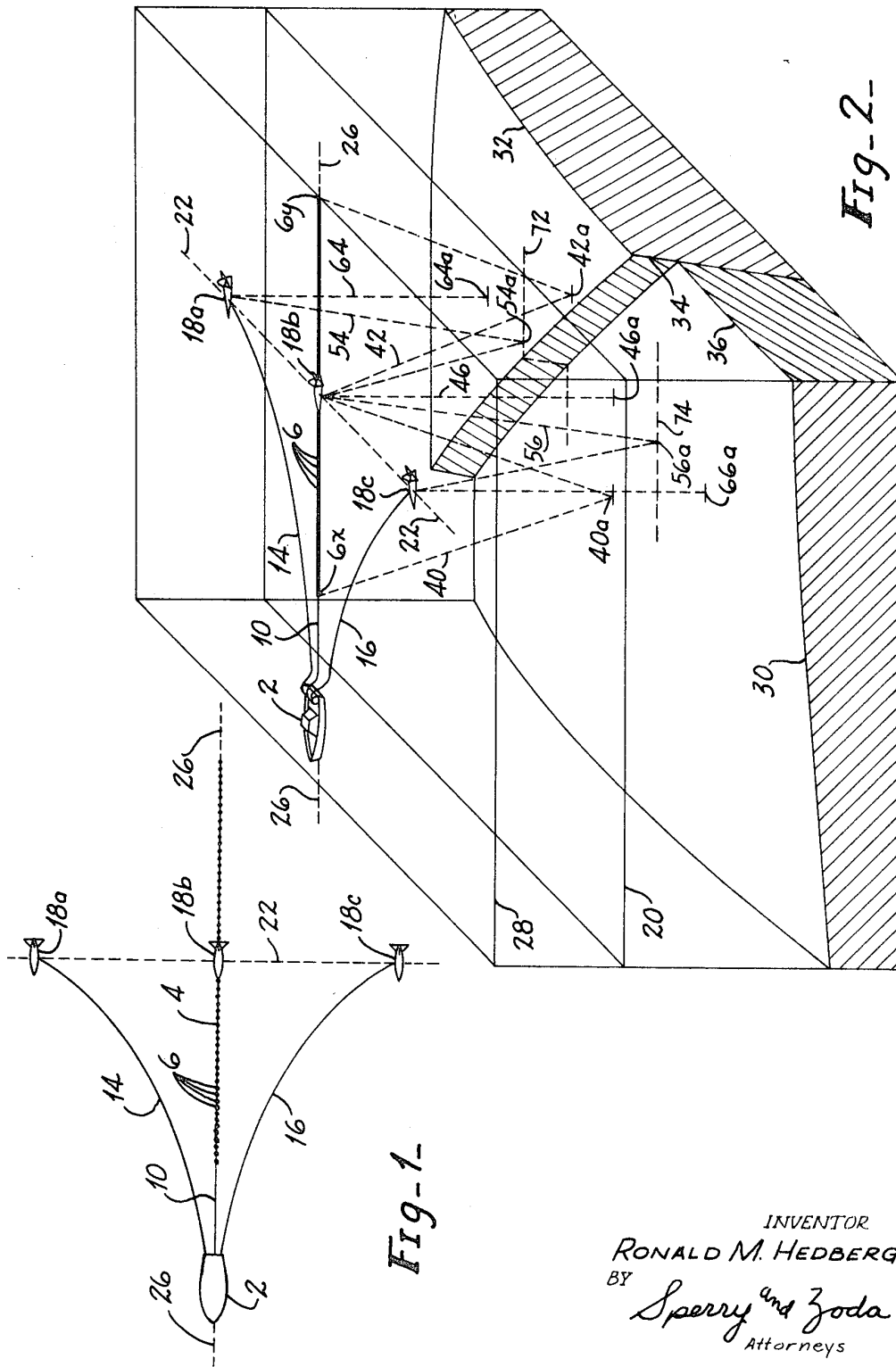


Fig-1-

Fig-2-

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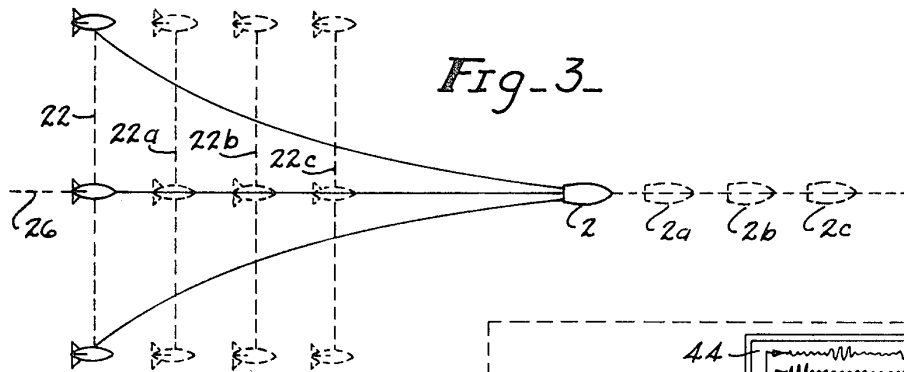


Fig-3-

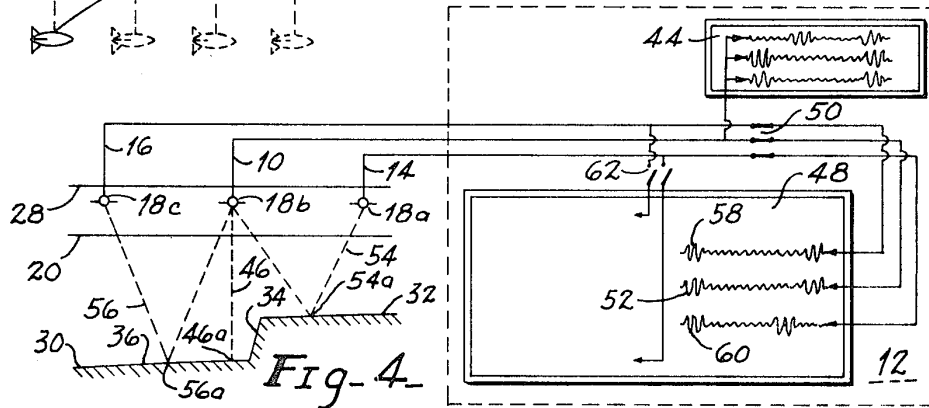


Fig-4-

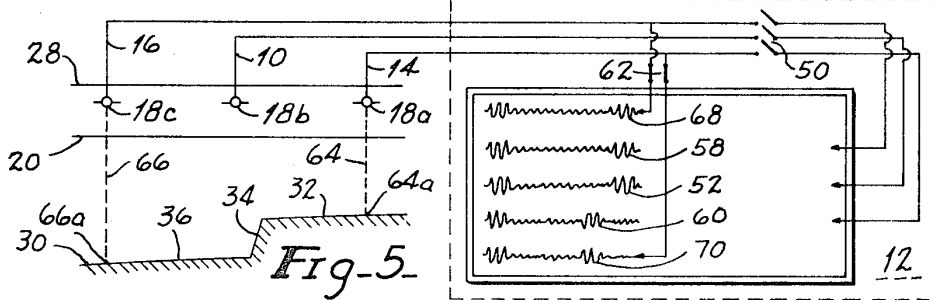


Fig-5-

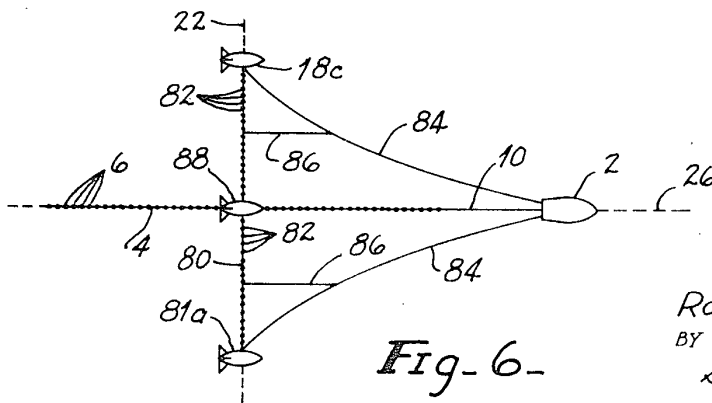


Fig-6-

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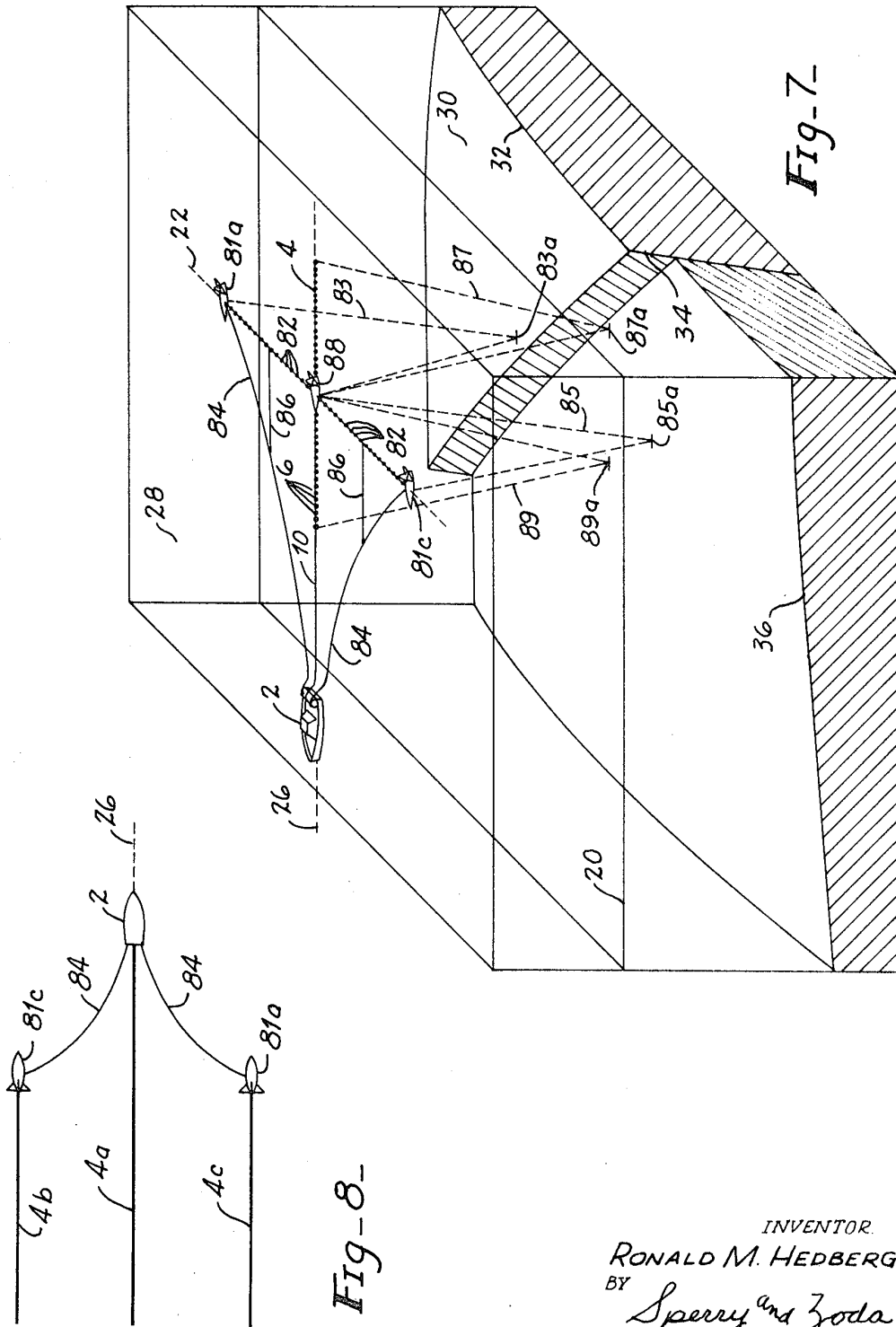


Fig-7-

Fig-8-

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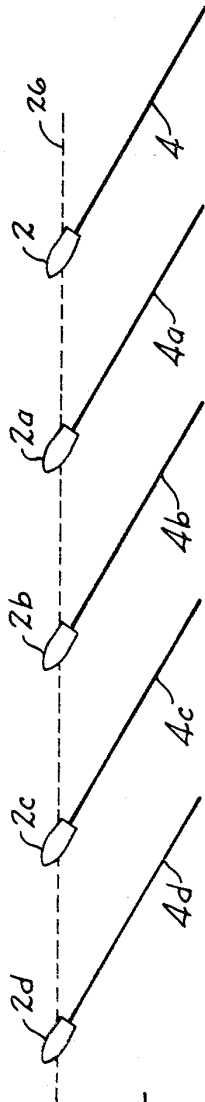


Fig-9-

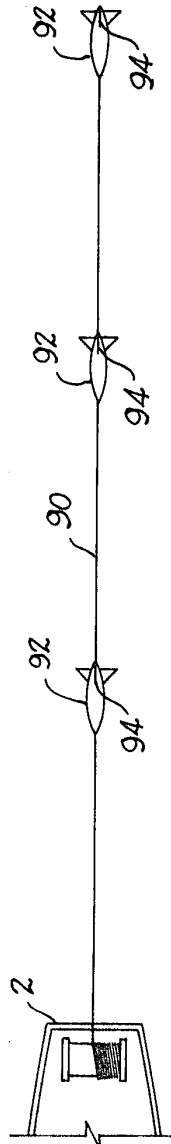


Fig-10-

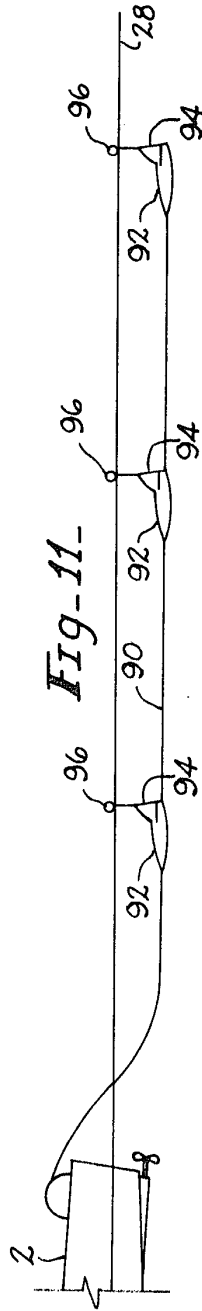


Fig-11-

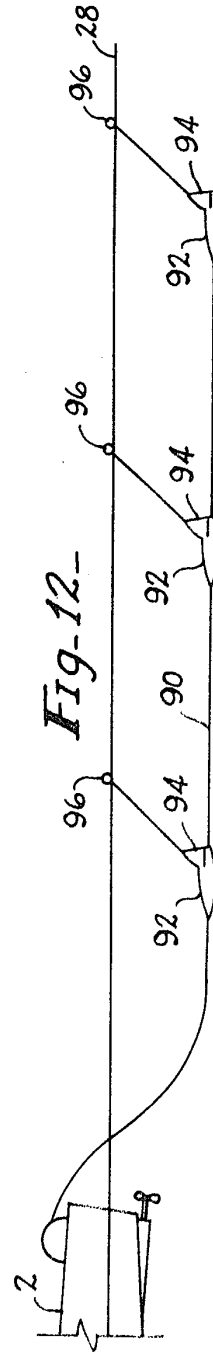


Fig-12-

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