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(71) Demandeur/Applicant:
NEMETH, O. ANDY, DE

(72) Inventeur/Inventor:
NEMETH, O. ANDY, DE

(74) Agent: BERESKIN & PARR LLP/S.E.N.C.R.L.,S.R.L.

(54) Titre : PROCEDE SONORE A CANAUX EN DISPOSITION CIRCULAIRE
(54) Title: 3-CHANNEL CIRCULAR SOUND METHOD

(57) Abrégé/Abstract:
The invention relates to a 3-channel circular sound system, wherein individual recordings are recorded on 3 channels by means of 3 microphones, which are arranged equidistantly in a circle and are directed inward, and are played back accordingly by means of 3 loudspeakers, which are arranged equidistantly in a circle and are directed outward.

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(72) Erfinder; und
(71) Anmelder : **NEMETH, O. Andy** [SK/DE]; Edlingerstr. 17, 81543 München (DE).

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(54) **Title**: CHANNEL CIRCULAR SOUND METHOD

(54) **Bezeichnung** : KANAL-KREIS-TON VERFAHREN

(57) **Abstract**: The invention relates to a 3-channel circular sound system, wherein individual recordings are recorded on 3 channels by means of 3 microphones, which are arranged equidistantly in a circle and are directed inward, and are played back accordingly by means of 3 loudspeakers, which are arranged equidistantly in a circle and are directed outward.

(57) **Zusammenfassung**: Die Erfindung betrifft ein 3-Kanal Kreiston System, wobei einzelne Aufnahmen mit 3 äquidistant im Kreis stehenden und nach Innen gerichteten Mikrophonen auf 3 Kanäle aufgenommen werden und 3 äquidistant im Kreis stehenden und nach Außen gerichteten Lautsprechern entsprechend wiedergegeben werden.

1. 3-Channel circular sound method

2.1 The conventional stereo and its multi-channel stereo formats like Surround, THX and others, work in the quadrangular / square spatial arrangement. In a recommended position, the listener is positioned towards the front, in opposition to the left, right stereo signal. In altered positions, the reproduction would not be optimally audible.

2.2 The new 3-channel circular sound system differs substantially from known formats. Its optimum effect range is in a circle from the focal point outwards everywhere in the space. During sound recordings as well as sound reproduction, the people involved can move around because the sound is distributed in a circle / sphere. Even at a low reproduction volume, the new format gives the listener the feeling of being part of the resonant body. It is supposed to establish, in combination with future image projections, the optimum sound and image/object creation and development in a technically environmentally friendly manner.

A) Sound recording:

A.1. Individual recordings are made with 3 (or 6 or 9) microphones on 3 channels. Their membranes are arranged towards the center, towards the source of the sound, in a circle at 120° angles (Fig. 1). For 6 microphones, the angles are at 60°.

B) Reproduction

B.1. In the 3-channel format, loudspeakers are arranged in the center of the space with the membranes directed outward on 3 segments at 120° angles (Fig. 2), 6 segments at 60° angles and 9 segments at 40° angles.

B.2. At the circle of the outer zone, the loudspeakers are directed with their membranes towards the inside and distributed over 3 and more segments in a circle at equal distances (Fig. 3).

B.3. Depending on the size and type of the space, the space can be divided into several zones from the center outwards. In the zones,

the membranes of the loudspeakers are directed inwards and outwards and the loudspeakers are distributed over 3 and more segments in a circle (all around) at equal distances.

CLAIMS: CHANNEL CIRCULAR SOUND METHOD

1. A 3-channel circular sound recording and reproduction system, characterized in that

spatial sound processing such as recording and reproduction is always to be performed in a circle about its focal point in the 3-channel format.

2. Sound recording system according to Claim 1,

characterized in that

the sound recording is performed with 3 microphones whose membranes are directed towards the center, towards the source of the sound, and arranged in a circle at distances of 120° (Fig. 1), or with 6 microphones at 60° and 9 microphones at spaces of 40°.

3. Sound reproduction system according to Claim 1,

characterized in that

the sound reproduction of acoustic instruments and loudspeakers takes place with their resonating bodies arranged in a circle in the middle of the room and with the sound directed towards the outside (Fig. 2).

4. Sound reproduction system according to Claim 1,

characterized in that

the sound reproduction of acoustic instruments and loudspeakers takes place with their resonating bodies arranged in a circle at the periphery of the room with the sound directed towards the inside (Fig. 3).

5. Sound reproduction system according to Claim 1,

characterized in that

the sound reproduction of acoustic instruments and loudspeakers takes place with their resonant bodies combined in a circle of the region of the room, with the sound directed towards the inside and towards the outside.

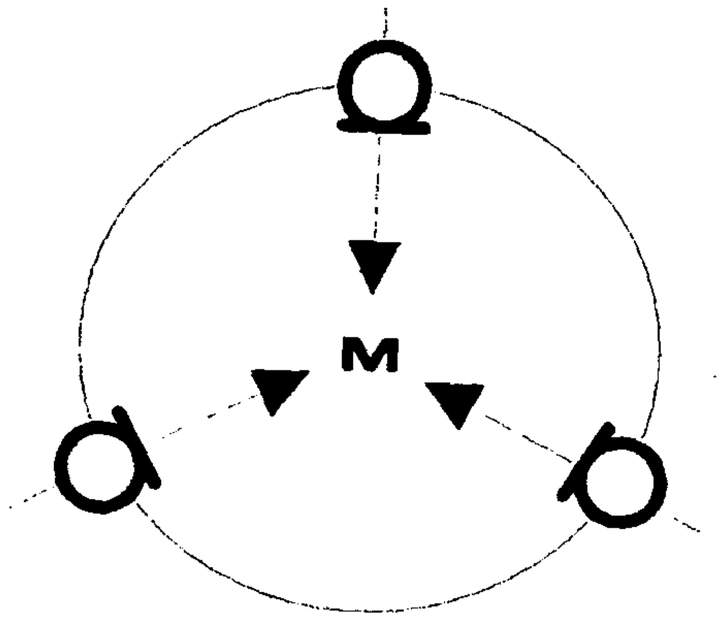

Fig.1.

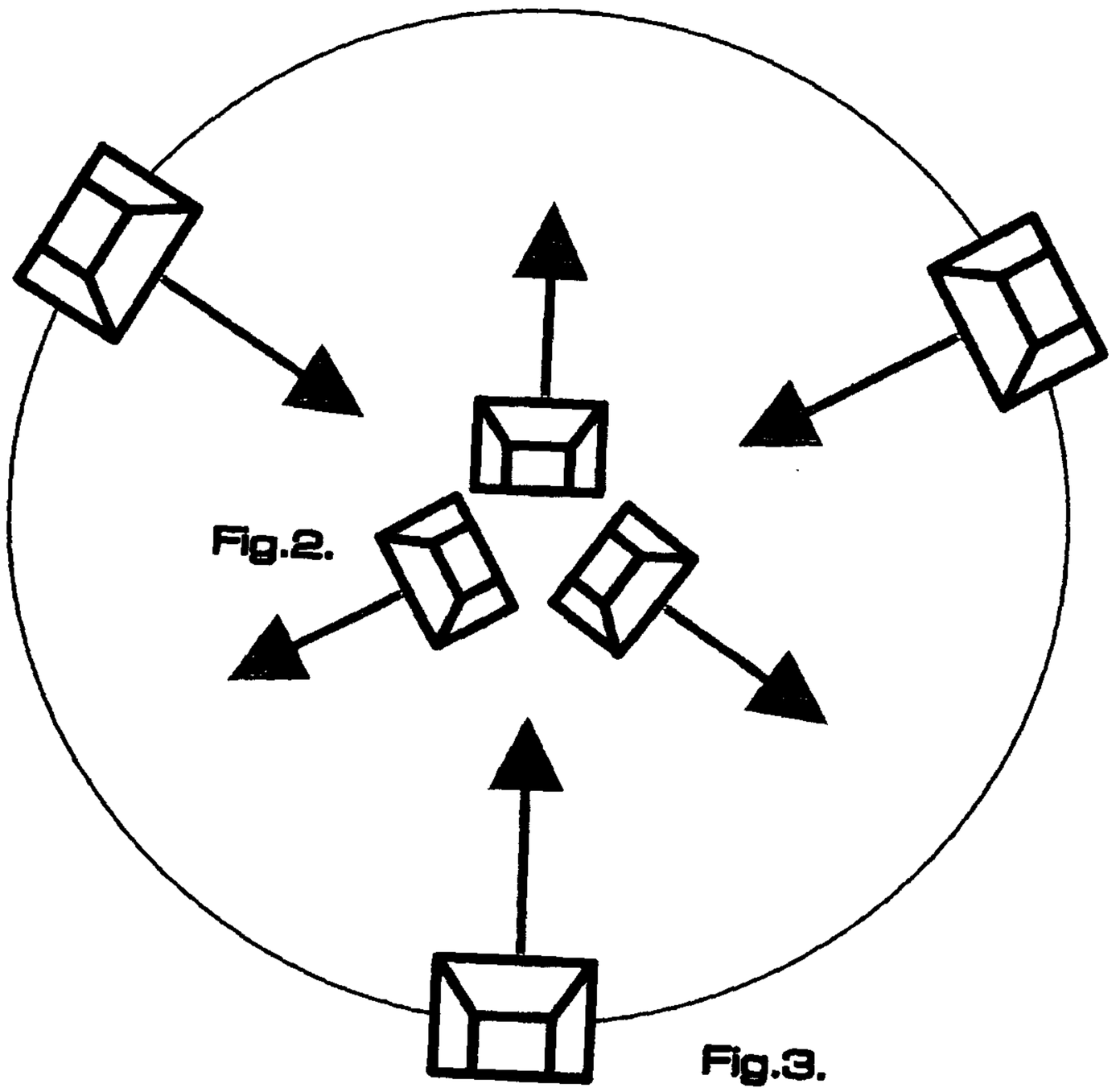

Fig.2.

Fig.3.