

(march 1986  
SEG-004)Additional Information Regarding  
the Manufacture of the Least-  
Effect Generator.

1. According to the information given by Searl the plastic binder, used in the manufacturing process of the plastic bonded magnets, should have an excess of negative charge (negative ions / electrons). I have not yet studied the electrical properties of polymers in detail and can therefore not give a qualified statement regarding the selection of plastic binder and its importance for the effect.

\* in later experiments,

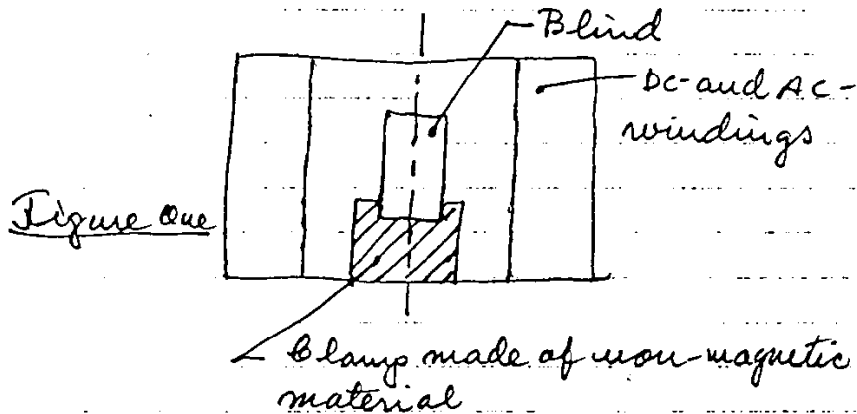
The plastic used by Searl was supplied by a company in Kewbury, Berkshire, England. However, the bonding agent used by Searl in his original experiments between 1946 and 1952 was supplied by an American company who also supplied the aluminium-titanium based ferro-magnetic powder. It would be desirable to use the same kind of binder and magnetic powder in order to exactly repeat Searl's original experiments. According to Searl, the American supplier can be found in the American trade catalogue "The Thomas Register". Searl's documents were all destroyed in a fire in 1983, but he states that if shown

the appropriate pages in the catalogue he will be able to identify the company if it is still in existence.

2

The importance of the position of the 'blind' inside the coils during magnetisation is unknown.

However, in the initial experiments it is advisable to place and clamp the blind in the centre of the coils, as shown in figure 1.



3

The GC will only function properly if the AC-voltage across the AC-winding is maintained at a constant RMS-value\* and at a constant frequency ( $\geq 1\text{MHz}$ , sine wave) during the magnetising process of all the magnets (runners and plates) which constitute one and the same Gyro-Cell. The reason for this condition could be due to a possible

\* 7

↳ 7

relationships between frequency and pole-density  $\delta$  (Report SEG-002 page 3). <sup>1950</sup>

4. The GC will function properly if the DC-voltage across the DC-coil is maintained at a constant value\* ( $V = R_{DC-coil} I_m$ ) during the magnetising process of all the magnets (runners and plates/part of plates) which constitute one and the same gyro-cell. The reason for this condition is ~~unknown~~ at present unknown

5. The time needed for magnetization is normally very short (in the order of  $\mu$ -seconds and less). However, due to unknown factors, this time may have to be extended to time intervals in the order of seconds.

6. Each magnet (blind) is magnetised during one on-off duty cycle. ~~Searl's statement that the DC-voltage and the AC-voltage should be switched on simultaneously at a zero-crossing of the AC-voltage is based on incomplete experimental~~

\* ( $V = R_{DC-coil} I_m$ ). The number of amp turns used by Searl in his original experiments was  $I_m N_{oc} = 180 \underset{\text{amps}}{\text{amps}} \times 180 \text{ turns} = 32400 \text{ At}$

~~evidence due to the use of very simple and primitive switching equipment.~~

As the key to success appears to depend on correct switching time it is necessary to design and use more sophisticated electronic switching that will enable the control of the precise timing of the magnetising on-off duty cycle.

7

The existence of the pole-pattern created on each runner and plate, by the combined AC-DC field, was experimentally discovered by magnetic measurements. By scanning the recorded pole tracks using small probes (Hall-effect elements) and a cathode ray oscilloscope, each individual pole was made visible on the oscilloscope screen as shown in fig. 2.

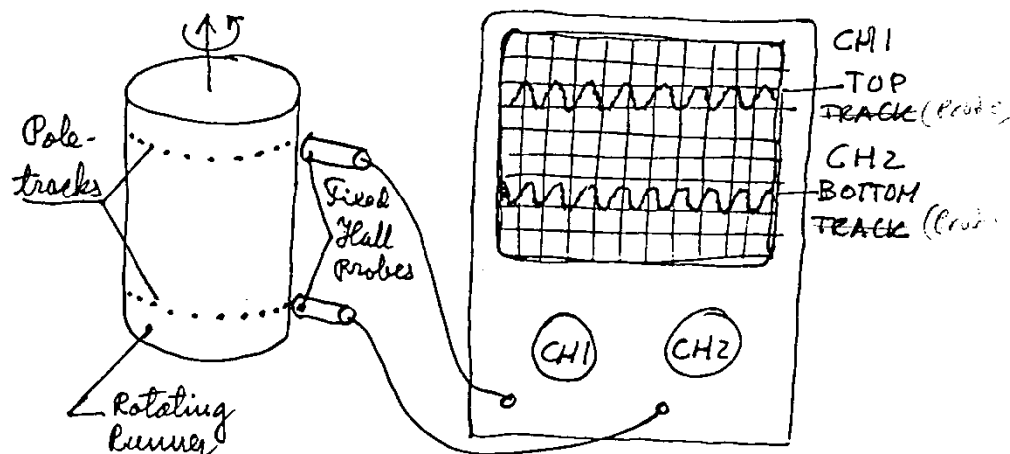


Figure Two.

A more detailed examination of the oscilloscope picture seemed to show that the top track consisted of, for instance, north-poles only and the bottom track of south poles only as illustrated in Figure 3.

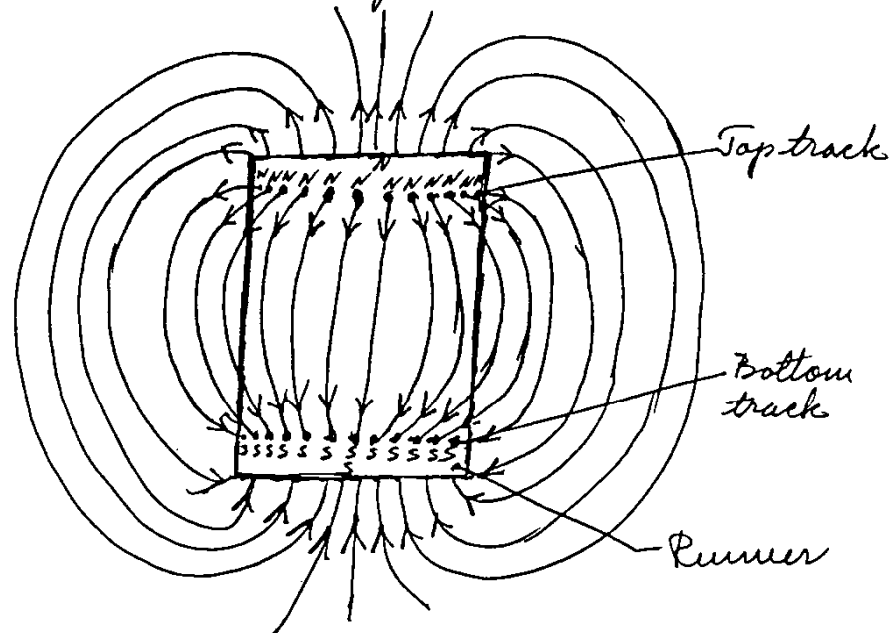


Figure Three.

This field configuration, if it is correct, suggests that the diameter/length ratio of the magnetising coil could be of crucial importance for the manifestation of the Searl-Effect. I therefore propose that a number of magnetising coils with different diameter/length ratios are manufactured, e.g.

D (mm)	L (mm)	IN (At)
100	100	32400
100	150	"
150	100	"
150	150	"