be operated ether independently, in tandem or in an alternating pattern.

Claim 15. The timing/firing system for operation of an electromagnet of claim 14 wherein said firing system includes at least one flyback diode electrically connected across e positive and a negative connection of said at least one electromagnet.

Claim 16. The timing/firing system for operation of an electromagnet of claim 9 wherein said timing module includes at least one photoelectric infrared sensor, said at least one infrared sensor being constructed and arranged to cooperate with a timing disc to provide the rotational position of said crankshaft, said photoelectric sensor generating a steady electrical signal for delivery to a power modulator and pulse controller.

Claim 17. The timing/firing system for operation of an electromagnet of claim 16 wherein said timing module includes at least one power modulator and pulse controller in electrical communication with said photoelectric infrared sensor, said power modulator and pulse controller constructed and arranged to convert said steady digital signal received from said photoelectric infrared sensor to a signal that can be manually varied in duty cycle within the signal time frame/duration sent.

~~Claim 18. An electromagnetic coil construction particularly suited for use in a magnetically operated reciprocating engine comprising:~~

~~a spool constructed of a ferromagnetic material suitable for creating a magnetic field, said spool having core constructed of a material that has been annealed in a magnetic~~

~~field with a hydrogen atmosphere so as to alter the central core's crystal structure by aligning the grains of the material to provide a high magnetic permeability;~~

~~a continuous wire having electrically conductive properties extending around said core multiple times, said continuous wire encased in an insulating material, the distal ends of said continuous wire extending outwardly for connection to a power source.~~

~~Claim 19. The electromagnetic coil construction of claim 18 wherein said core material is a nickel iron alloy.~~

~~Claim 20. The electromagnetic coil construction of claim 19 wherein said core material includes about 80% nickel, 15% iron plus traces of copper, silicone and molybdenum.~~

~~Claim 21. The electromagnetic coil construction of claim 18 wherein said core includes a pair of end caps defining said spool, said end caps having a diameter larger than said core whereby said continuous wire is wrapped between said end caps to provide a barrier to prevent movement of continuous wire coil with respect to said core during operation of said electromagnetic coil.~~

~~Claim 22. The electromagnetic coil construction of claim 18 wherein~~

~~said continuous wire extends around said core about 250 times and is about an 8 gauge copper wire.~~