ALTRA SCIENZA

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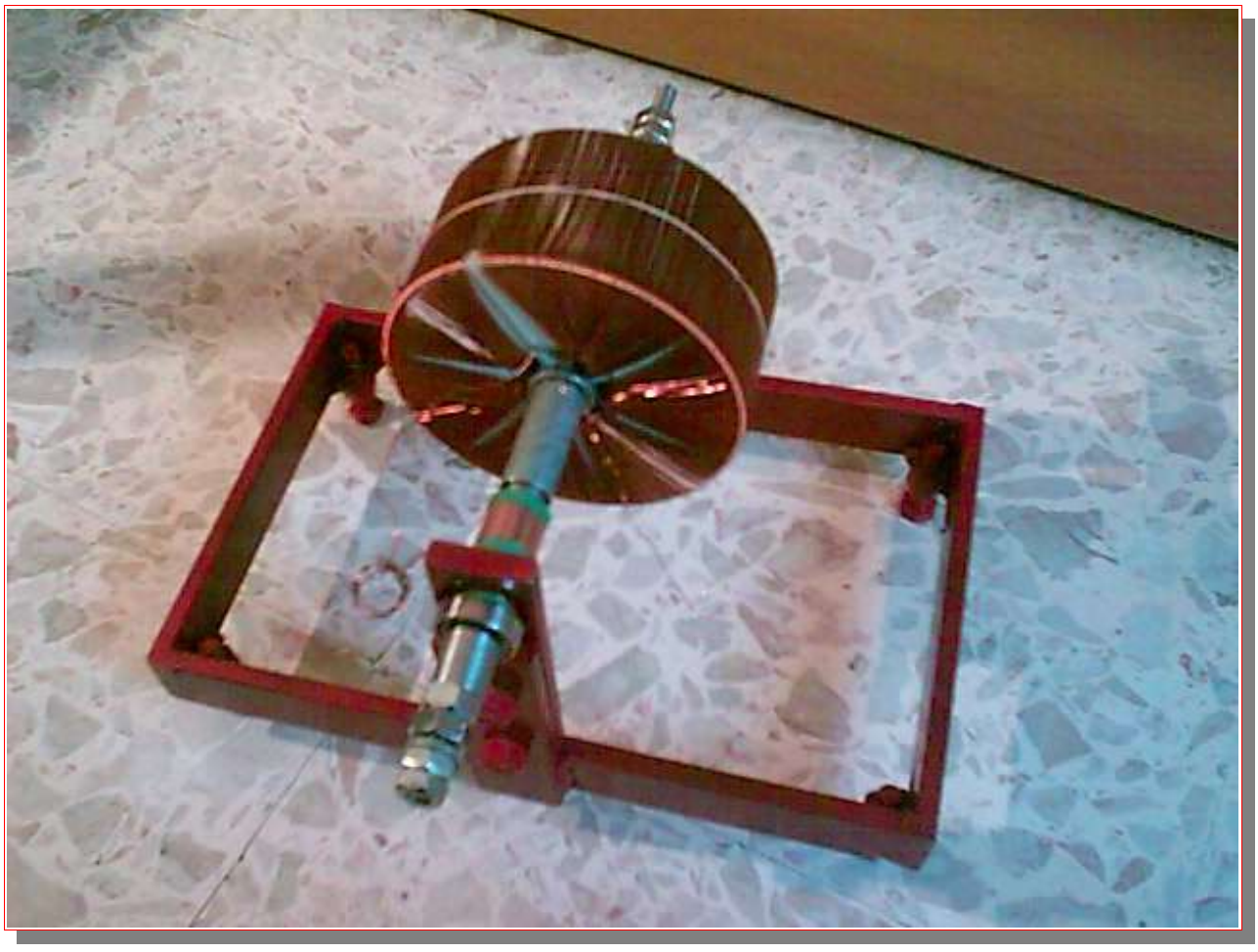

Tamburo per il Generatore Omopolare di Faraday (Cosimo Sgarlata)

Sommario

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FUSIONE FREDDA (*O FORSE FISSIONE FREDDA*) TUTTA ITALIANA

Miei cari amici,
poiché chi leggerà questo articolo è certamente uno che si discosta dal comune, certamente appassionato di ricerca scientifica, addirittura potrebbe essere un esperto di fisica, probabilmente conoscitore della free-energy e con un'apertura mentale molto ampia, sarebbe inutile qualsiasi cappello introduttivo o precisazione iniziale. Tuttavia, mi preme darvi informazioni molto precise e per essere coerente con il mio lavoro di divulgatore scientifico, voglio spiegare esattamente da dove inizia tutto quello che sta accadendo in questi giorni e quindi capire correttamente quello che stiamo dicendo.

INTRODUZIONE

Nel 1989 i ricercatori M. Fleischmann e S. Pons dell'Università di Southampton England e della Università dell' Utah negli USA, annunciarono di aver condotto un esperimento tramite il quale si dimostrava la possibilità di ottenere reazioni di fusioni nucleari a temperature relativamente basse.

La teoria precedente dimostrava che, per ottenere la fusioni di nuclei leggeri, era necessario adoperare temperature elevatissime. Queste teorie erano suffragate da esperimenti molto importanti e da principi oggi quasi perfettamente dimostrati. La bomba termonucleare per esempio è una evidente dimostrazione di quello che stiamo dicendo. Un contenitore di deuterio e trizio (due isotopi dell'idrogeno), sono portati ad elevata temperatura grazie all'esplosione di una bomba atomica utilizzata appunto per l'innesco. La temperatura elevatissima di circa 10 - 20 milioni di gradi permette lo svolgimento della reazione di fusione tra il trizio e il deuterio che producono a loro volta enormi quantitativi di altra energia (purtroppo in questo caso estremamente distruttiva).

Anche il nostro Sole (in base alle teorie attuali) produce energia grazie a reazioni di fusione dell'idrogeno in elio. Anche queste reazioni sono facilitate dalla grande temperatura presente all'interno della fornace solare circa 15 milioni di gradi.
Nel marzo del 1989 invece, due elettrochimici sovvertivano completamente questo concetto dimostrando la possibilità dell'attuazione dell'antico sogno alchemico perduto nella notte dei tempi della nostra storia umana.

Era possibile fondere deuterio ed ottenere elio semplicemente utilizzando un pezzo di palladio e dell'acqua pesante. La risposta italiana all'annuncio della fusione del deuterio nel palladio non tardò a farsi sentire. Il gruppo A. De Ninno, A. Frattolillo guidati dal professor F. Scaramuzzi, dimostrarono che anche nel titanio, quando quest'ultimo assorbe a bassa temperatura gas deuterio, si verifica un surplus di energia e sono emessi neutroni. Lo stesso gruppo di ricercatori oggi, seguiti dall'illustre professor E. Del Giudice amico del compianto G. Preparata, con un esperimento molto accurato e preciso hanno **dimostrato inequivocabilmente** la produzione di elio4 dalla cella elettrolitica costituita da un catodo di palladio e da un anodo di platino immersi in acqua

pesante. Inoltre, va a loro il merito di aver sperimentato un sistema molto efficiente per determinare la condizione di caricamento del palladio e determinare quindi l'esatto momento in cui le reazioni di fusione fredda prendono inizio. Dalla teoria di Giuliano Preparata, detta teoria della super-radianza, il palladio potrebbe forse in futuro risolvere molti problemi legati al nostro approvvigionamento energetico. Appena 1 cm cubico di palladio sarebbe in grado di fornire dai 3 ai 5 kW di potenza energetica.

Merita certamente un riconoscimento indiscutibile anche il lavoro editoriale di Roberto Germano che nel suo libro "Fusione Fredda. Moderna Storia d'inquisizione e d'alchimia" riporta con fedele attenzione e accurato rigore cronologico i tanti esperimenti effettuati nel mondo sul problema della fusione fredda.

Mentre tutto questo fermento di idee procede non senza difficoltà verso la culminazione dell'antico sogno alchemico, scompare qualche anno fa lo studioso Renzo Boscoli, di complessa personalità, che ha scritto articoli estremamente interessanti sulla possibile struttura fredda del nucleo solare assoggettando alle teorie della fusione fredda appunto, la dinamica delle reazioni di energia che avvengono nel sole. Ho voluto nominare il compianto Boscoli, per citare ancora uno degli straordinari pionieri di questa crociata per trovare la pietra filosofale e cogliere l'occasione per chiedere scusa a quelli invece, che ho certamente dimenticato di segnalare per quanto riguarda questo contesto.

LA NOSTRA STORIA EBBE INIZIO…

Io, ed i miei carissimi amici A.D. e D.C. abbiamo seguito con estremo interesse le vicende del 1989 della fusione fredda anglo-americana e nel 1991 riuscimmo a preparare nel mio laboratorio un sistema a doppia cella differenziale per studiare in modo accurato il fenomeno della fusione fredda. Tramite un hardware molto sofisticato e attraverso l'uso di un computer, riuscimmo ad effettuare in modo automatico un certo numero di cicli di elettrolisi utilizzando due celle elettrolitiche che lavoravano contemporaneamente. La prima contenente acqua pesante e deuterossido di litio, era la cella di reazione principale. La seconda, usata per generare la linea di base, era costituita invece da acqua normale ed idrossido di litio. Notevole fu il contributo di A.D. mio amico carissimo e soprattutto esperto conoscitore della chimiche per quanto riguarda le sue idee relative alla collocazione geometrica degli elettrodi ed all'idea di utilizzare ultrasuoni a 1.44 MHz per catalizzare la reazione di fusione. Purtroppo vicende personali anche legate alla necessità di fondi ci costrinsero a chiudere completamente le ricerche nel 1994 senza misurare nessun risultato apprezzabile. Tuttavia avevamo fatto una straordinaria esperienza ed avevamo infine acquisito la pratica necessaria per misurare calorimetricamente soluzioni elettrolitiche in condizioni di evidente attività ionica.

IMPROVVISAMENTE UN'INTERESSANTE NOTIZIA

In questi mesi in rete è apparso, apparentemente in sordina, il famoso esperimento illustrato in modo abbastanza chiaro da Jean Louis Naudin. L'esperimento è qualcosa di molto interessante ed è un fenomeno scoperto da due fisici molto famosi, il professor T. Mizuno e T. Ohmori dell'Università di Kitaku in Giappone. L'amico D.C. di Caserta che ringrazio vivamente, fu determinante per consolidare il gruppo di lavoro che attualmente è operativo all'analisi teorica del problema. Il giovane D.C. è stato, per così dire, il catalizzatore che ha portato la nostra attenzione su questo straordinario fenomeno. Oltre ad essere stato il promotore della fase "studiamo questa cosa" è da attribuire certamente a lui la fase di esame iniziale della fattibilità del progetto ed il suo costante aiuto nell'analisi teorica dei dati in base alle osservazioni sperimentali. E' stato molto semplice per noi tre ripetere l'esperimento di Mizuno/Ohmori poiché disponevamo in laboratorio di quasi tutti gli elementi necessari.

COSA ABBIAMO ALLESTITO

Poiché l'esperimento produce forti emissioni elettromagnetiche anche in banda ottica ed il nostro intento era in qualche modo anche la misura di queste emissioni, era necessario preparare una cella elettrolitica in vetro dotata però di caratteristiche adiabatiche per non degradare troppo l'energia termica presente in essa. Pertanto abbiamo utilizzato una cella in vetro protetta da una camera laterale, sempre in vetro, all'interno della quale abbiamo praticato il vuoto. Sia ben chiaro che, anche grazie a questi accorgimenti, il calorimetro è purtroppo dotato di forti perdite termiche, non altro per il fatto che il lato superiore deve essere completamente aperto per permettere la fuoriuscita dei gas prodotti dall'elettrolisi. Risulta evidente quindi, che siamo stati costretti a

praticare oltre alla misura calorimetrica, anche una misura della quantità del liquido evaporato per stabilire l'ammontare dell'energia termica accumulata nella cella.

La cella è stata dotata anche di un prolungamento superiore costituito da due pezzi, uno di polietilene e l'altro di polipropilene con funzione di paraspruzzi. Questo accessorio deve essere pesato accuratamente quando è asciutto, in modo da poter misurare successivamente l'eventuale liquido che potrebbe fuoriuscire dalla cella di vetro. Superiormente alla cella è stato collocato una cappa aspirante costituita da un tubo da 18 cm di diametro alla cui estremità è stata posta una ventola funzionante in corrente alternata.

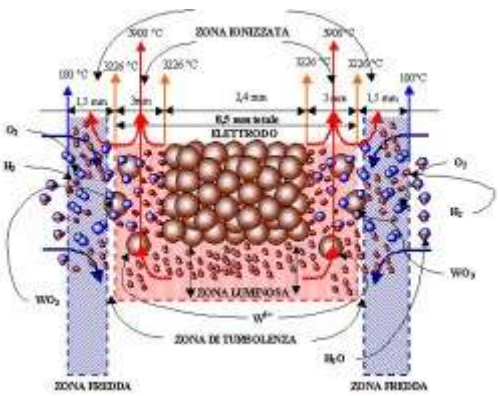
La ventola aspirante è specifica per questo tipo di compito. State molto attenti ad utilizzare in questi casi solo ventole specifiche per aspirazione di fumi fiammabili. La distanza fra la bocca del tubo aspirante e la parte superiore della cella è di circa 10 cm, sufficiente per connettere le terminazioni elettriche agli elettrodi e collocare i trasduttori di misura. Il tubo a tiraggio si erge in alto per una distanza di circa un metro. E' molto importante aspirare i gas che si vengono a generare durante l'elettrolisi. Questi gas devono essere velocemente diluiti all'esterno poiché possono innescare pericolose esplosioni.

Non approvo molto le immagini in rete nel sito di Naudin che illustrano una sistemazione troppo "fai da te" della cella e persuadono l'eventuale lettore che il fenomeno può essere riprodotto con facilità. Ricordate che la cella, anche se nelle condizioni di regime di plasma produce una ridotta quantità di gas, nelle fasi iniziali e finali si genera un'intensa produzione di idrogeno e di ossigeno in quantità stechiometricamente esplosive.

La concentrazione della soluzione elettrolitica, per ottenere un ottimo effetto di plasma a carico dell'elettrodo catodico è costituita da 0.5 M di K_2CO_3. Una quantità pari a 200 ml di questa soluzione permette di riempire la cella al livello opportuno per evitare fuoriuscite di spruzzi oltre il livello del paraspruzzi. Proprio sopra il paraspruzzi è fissato un supporto plastico di metacrilato forato sul quale sono allocati sia il catodo che l'anodo distanziati per circa 4 cm. L'esperienza di Naudin utilizza un catodo di tungsteno e un anodo costituito da una pagliuzza di acciaio inossidabile. Nel nostro caso invece abbiamo utilizzato sia per il catodo che per l'anodo due elettrodi cilindrici di tungsteno puro di 17,5 cm con spessore 2,4 mm. Per reperire gli elettrodi di tungsteno, basta rivolgersi a negozi di ferramenta attrezzati per la saldatura tipo TIG.

Attenzione, in commercio esistono elettrodi di questo tipo contenenti circa il 2% di ossido di torio. Per quanto normalmente venduti ed ammessi dalle leggi italiane io sconsiglio vivamente l'utilizzo di questi ultimi. Poiché durante la reazione elettrolitica si osserva un certo consumo dell'elettrodo catodico (l'anodo molto di più), utilizzando tungsteno tipo toriato, incorrereste certamente in pericolosi inquinamenti della vostra soluzione con estremo pericolo per voi stessi. Il torio, come voi già sapete, **è radioattivo**. Scusate se mi ripeto in questo punto ma, state molto attenti. Il tungsteno toriato infatti, sta per essere ritirato dal commercio e al suo posto si sta già commercializzando un altro tipo di elettrodo TIG chiamato tungsteno ceriato che contiene cerio al posto del torio. Comunque, presso un rivenditore di utensili ed accessori per saldature, è possibile reperire con relativa facilità anche elettrodi costituiti da tungsteno puro quindi non dovreste avere difficoltà a procurarveli. La maggior parte dei produttori di questi elettrodi, utilizza un contrassegno verde per indicare l'elettrodo di tungsteno puro, mentre utilizza un contrassegno rosso per indicare quello toriato.

Nelle immagini in rete sul sito di Naudin si osserva che l'elettrodo catodico è a sua volta racchiuso in un tubicino di vetro. Questo espediente sembra essere molto importante per permettere la scarica di plasma sul catodo. Ci siamo accorti (intanto per le condizioni sperimentali che sto descrivendo), che occorre lavorare con circa 1 cm di elettrodo catodico scoperto. L'anodo invece può essere collocato senza particolari problemi. Il tubicino di vetro utilizzato per coprire parte del catodo è di tipo pirex ma il nostro gruppo di Caserta ha ottenuto migliori risultati quando abbiamo utilizzato un tubo ceramico.

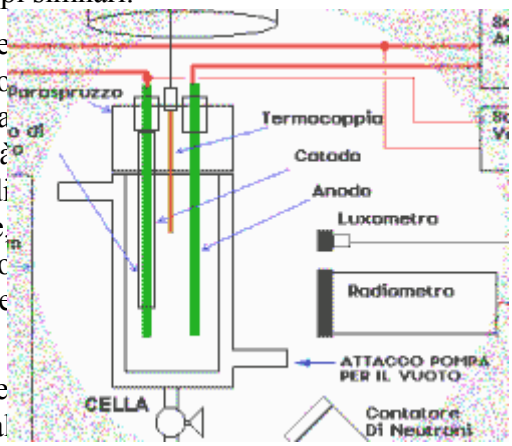


Infatti, quando la scarica di plasma viene generata, le temperature presso

l'elettrodo raggiungono livelli elevatissimi. L'amico A.D. ha calcolato la temperatura raggiunta dall'elettrodo catodico ponendo superiormente ad esso un sensore di temperatura collegato con il computer. Nello strato di plasma pare che si verificano livelli di temperatura che oltrepassano i 3000 °C.

In queste condizioni operative così estreme del catodo, il vetro del tubicino che lo avvolge si degrada e fonde. Normalmente la scarica di plasma prima passa per una fase azzurra molto breve poi si porta ad assumere un colore rosso arancio, infine raggiunge nelle condizioni a regime un colore viola o rosa per poi fornire al completamento ottimale delle condizioni di funzionamento della cella, un colore bianco.

Considerando le condizioni dell'elettrodo nella fase iniziale, cioè la fase buia o nera, mi sembra quasi il passaggio delle fasi alchemiche chiamate: nigredo, rubedo e albedo al compimento della grande opera. Ovviamente questa mia suggestiva constatazione non deve essere presa alla lettera. Se usate il tubetto di vetro, durante la prova osserverete purtroppo anche una curiosa colorazione gialla posta sopra la zona di plasma che inquina i risultati di analisi radiometrica del bagliore. Questa colorazione, indica appunto la fusione del vetro del tubicino. Il colore giallo è caratteristico dell'emissione spettrale del sodio che è contenuto nel vetro. Per evitare questo fenomeno è possibile usare un tubetto di ceramica refrattaria come l'allumina o altri tipi similari.



Per apprezzare la qualità della scarica di plasma e determinare esattamente gli istanti temporali quando essa si presenta, abbiamo collocato nel nostro impianto due sensori. Un sensore è costituito da una cella fotoresistiva in grado di darci informazioni generali sulla luminosità della cella. L'altro sensore è costituito da un pirometro in grado di monitorare lo spettro di energia luminosa prodotto dal catodo. Inoltre, nella figura allegata appare anche un contatore di neutroni che abbiamo realizzato alla meglio per darci eventuali indicazioni di radiazioni nocive emesse dalla cella.

Nell'articolo di T. Mizuno e T. Ohmori si legge che la reazione elettrolitica produce un flusso di neutroni pari a circa 60.000 conteggi al secondo. Vorrei far osservare che se questo dato corrisponde al vero, non è conveniente procedere alla verifica di questa esperienza senza munirsi di particolari protezioni. I neutroni sono un tipo di radiazione estremamente subdola e pericolosa. Essendo particelle prive di carica elettrica possono attraversare molti centimetri di materia prima di fermarsi. L'intensità di un flusso neutronico da 1MeV può essere ridotta alla metà solo dopo che essa attraversa 10 cm di acqua, oppure 4,5 cm di calcestruzzo, oppure 0,9 cm di piombo. Se invece il flusso originario fosse di 10 MeV occorrerebbero 14 cm di acqua per dimezzarlo. Fate attenzione che sto parlando di dimezzamento del flusso di neutroni. Quindi, per ridurre a livelli trascurabili il flusso della radiazione, occorrerebbe moltiplicare per 4 o 5 volte gli spessori delle sostanze che ho elencato sopra.

Attualmente non conosciamo lo spettro di energia dei neutroni che vengono prodotti da questo esperimento. Comunque è molto importante sapere che la paraffina e il polietilene sono altri materiali schermanti grazie alla grande quantità di idrogeno presente nelle molecole che li compongono. Nel disegno sopra appare in evidenza una finestra trasparente in metacrilato (plexiglas) posta proprio davanti alla cella. Questo schermo (che ha uno spessore di diversi centimetri), è in grado di dare una certa protezione per i neutroni, se occorre necessariamente effettuare osservazioni del fenomeno, augurandosi che l'operatore si ponga a debita distanza e operi per brevissimi tempi. Un consiglio potrebbe anche essere l'uso di specchi combinati opportunamente per l'osservazione.

A questo punto è spontaneo da parte del lettore chiedersi se noi abbiamo misurato o meno un flusso di neutroni. Allo stato attuale non possiamo rispondere con certezza a questa domanda. Il nostro precario contatore di neutroni potrebbe anche aver conteggiato dei disturbi elettromagnetici. Pertanto, sarà importante leggere una nostra successiva comunicazione per conoscere eventuali risvolti e sapere qualcosa di più concreto su questo punto. (ndr. a tal proposito si dia una lettura alla seguente pagina)

La misura della temperatura ha presentato subito diversi problemi a causa delle forti emissioni elettromagnetiche del plasma che dicevamo poc'anzi. E' stato deciso di utilizzare un sistema integrato di acquisizione per tutti i segnali rilevati dai trasduttori, a sua volta completamente gestito da un personal computer, con un programma realizzato ad hoc per questa esperienza. Pertanto, è stato necessario utilizzare delle termocoppie per misurare le

varie temperature presenti nel processo. Il sensore di misura della temperatura, immerso nella cella, è costituito da un involucro in vetro al cui interno è stata posta una termocoppia tipo J (ferro costantana) a sua volta schermata da un contenitore cilindrico di ottone cromato posto a massa.

Questa disposizione non ha impedito la presenza di forti disturbi elettromagnetici che si presentano in modo evidente nell'immagine successiva nel quadrante in basso a destra. Un'altra termocoppia è posta (isolata galvanicamente) a diretto contatto dell'estremità superiore del catodo. Grazie a questa termocoppia è possibile ottenere informazioni sulle vicissitudini termiche di questo elettrodo. Un'ultima termocoppia è posta nell'ambiente per avere a disposizione anche quest'ultimo dato termico.

Per l'alimentazione elettrica della cella è stato utilizzato un variac connesso ad un alimentatore in corrente continua in grado di erogare una tensione variabile da 0 a 300 volt con possibilità di fornire anche correnti di spunto di 6 A. Il sistema computerizzato registra costantemente tutte le grandezze campionandole diverse volte al secondo. Quindi mentre l'operatore regola il variac modificando il valore della tensione applicata alla cella, il sistema registra il valore di questa tensione, il valore della corrente circolante nel circuito di cella e tutti gli altri trasduttori presenti. In questo modo il sistema procede al calcolo delle calorie introdotte e di quelle via via misurate grazie ai sensori termici.

La figura qui a fianco mostra, come esempio, quattro grafici relativi ad un'acquisizione effettuata nel mese di novembre 2003. Il primo grafico mostra l'andamento della tensione regolata manualmente tramite il variac. Le variazioni riportate, sono state praticate volutamente per attivare il fenomeno di elettroplasma per tre volte durante i 1200 secondi della durata totale della prova. E' possibile vedere anche l'andamento della corrente e della temperatura della soluzione. Confrontando i grafici di tensione con quelli ottenuti in risposta dal radiometro è possibile determinare la condizione di innesco riportata tramite una freccia rossa. In questo specifico caso l'innesco dello stato di plasma si è verificato ad un potenziale vicino ai 143-150 volt.
Sia nel report originario di Mizuno/Ohmori che nell'articolo in rete di Naudin si legge che la soluzione di $K2CO3$ deve essere preriscaldata ad una temperatura di 70 °C. Questa consuetudine operativa serve per guadagnare tempo e raggiungere immediatamente la condizione di innesco che per ragioni teoriche che più avanti vedremo, avviene proprio ad una temperatura superiore a 70 °C.

Quindi, per condurre l'esperimento è necessario porre il variac a zero volt e procedere lentamente fino al di sotto del punto di innesco senza oltrepassarlo. A questo punto esaminando i valori via via riportati dal computer è possibile determinare una linea di base e calcolare le perdite calorimetriche in questa condizione. Consiglio uno scan non superiore ad un centinaio di secondi a circa 120 V di cella. Una volta modificate le costanti nel programma si potrà procedere per la prova vera e propria raggiungendo il punto di innesco e misurando quindi, livelli di energia termica sensibilmente maggiori delle aspettative.

Mi sembra ovvio che la misura calorimetrica risulta essere estremamente indicativa poiché affetta da un numero molto elevato di errori. Le indicazioni calorimetriche devono essere necessariamente interpolate attraverso i calcoli che tengono conto del calore latente di evaporazione dell'acqua e quindi dell'esatta misura della quantità di acqua evaporata. Le prove calorimetriche devono essere di breve durata, per ridurre l'errore prodotto dalla variazione della capacità termica del calorimetro a opera dell'acqua che evapora. Molto importante deve essere anche il dosaggio della depressione creata dall'aspiratore dei fumi che non deve in qualche modo modificare la pressione sulla cella per evitare che varino i parametri calcolati a pressione atmosferica.

CONCLUSIONI E TEORIE

Attualmente non possiamo e non vogliamo procedere oltre le prove pratiche che abbiamo già effettuato. Le ultime esperienze infatti, sono state effettuate in un laboratorio campale che non ci consente di operare in comodità per cui il nostro interesse alla cosa si sta attualmente concentrando solo sugli aspetti teorici, circostanziati a verificare le probabili reazioni di "fissione fredda", come ha avuto modo di definire scherzosamente il mio amico A.D. a proposito della reazione che T. Mizuno e T. Ohmori hanno proposto, oppure (come noi pensiamo), ad altre reazioni che possono prodursi in seno alla cella.

Attualmente stiamo valutando due possibilità. Una di queste, potrebbe essere una reazione di fusione nucleare ma, per adesso abbiamo solo delle interessanti coincidenze matematiche. L'altra possibilità potrebbe essere una particolare reazione di pirolisi dell'acqua perpetrata dall'elettrodo di tungsteno catodico.

Nella relazione di T. Mizuno e T. Ohmori riportata nel bollettino ICCF-7 i ricercatori del sol levante hanno pubblicato questo tipo di reazione nucleare:

$$W^{184} \rightarrow Fe^{56} + 2\ Cr^{52} + 2\ C^{12}$$

Essi, probabilmente sono certi di spiegare il fenomeno energetico attraverso una reazione di fissione. Questa reazione nucleare spiegherebbe in qualche modo la rilevazione dei neutroni che i due ricercatori dicono di aver misurato. Infatti, se consideriamo i pesi atomici dell'equazione, essa è perfettamente bilanciata. Se però analizziamo i numeri atomici ci troviamo 12 protoni in più.

$$_{74}W^{184} \rightarrow {}_{26}Fe^{56} + 2\ {}_{24}Cr^{52} + 2\ {}_{6}C^{12} + 12\ p \rightarrow 12\ \beta^{+} + 12\ n$$

Questi protoni tramite il noto processo di interazione debole si trasformeranno a loro volta in elettroni positivi (positroni) e in neutroni. E' proprio a causa di questo grande numero di elettroni positivi prodotti da quest'ultima reazione che viene promosso l'intenso stato di plasma a carico dell'elettrodo. Nei pressi dell'interfase catodica quindi, la violenta reazione di combinazione delle cariche ioniche che si ossidano e si riducono presso l'elettrodo, probabilmente catalizzata dagli atomi di potassio presenti nell'elettrolita innescano in qualche modo questo straordinario processo. Il processo, sembra infatti, dipendente fortemente da una soglia di densità di corrente che deve essere in qualche modo raggiunta.
T. Mizuno e T. Ohmori hanno riportato un dato interessante. Se l'elettrolita viene cambiato utilizzando del solfato di sodio il numero dei neutroni prodotti si riduce notevolmente. Questo fatto deve farci riflettere attentamente e dimostra che l'elettrolita può modificare il risultato di questo esperimento.
Tuttavia, sono state fatte dal nostro gruppo di lavoro di Caserta alcune misure che hanno rilevato una certa proporzionalità fra il consumo di materiale catodico ed il sovrappiù di energia che rileviamo nella cella.
Se le cose stanno in questo modo, ed anche sulla base di alcuni nostri calcoli, ci troviamo di fronte ad un possibile sfruttamento di questa energia. Il costo del materiale catodico consumato è infatti di gran lunga inferiore al ricavo energetico totale. Ma per essere certi di questa affermazione sono necessari ulteriori studi e approfondimenti.

In questo momento infatti, abbiamo un'espressione matematica che mette in relazione le calorie prodotte con il consumo di tungsteno. Ulteriori indagini e verifiche saranno eseguite per stabilire la correttezza del nostro modello matematico.
La cella di T. Mizuno e T. Ohmori sembra essere l'antico l'Athanor dei vecchi alchimisti che cercavano la pietra filosofale, ma molta strada deve ancora essere percorsa per riuscire a trovare un applicazione conveniente per questa scoperta.

Nota1) Nel testo della relazione di T. Mizuno e T. Ohmori si può osservare un errore di cui certamente è da attribuirgli una causa tipografica. La relazione di fissione presentata dagli autori si completa con il termine b- palesemente errato. Infatti, se un neutrone si trasforma in protone sono prodotti anche un elettrone negativo (b-) e un antineutrino. Viceversa se un protone si trasforma in neutrone (come nel nostro caso), abbiamo la produzione di un positrone (b+) e di un neutrino.

Alessandro Dattilo, Domenico Cirillo e Vincenzo Iorio

RACCOLTA di IMMAGINI

Sequenza accensione plasma

La cella elettrolitica

Altre immagini dell'esperimento

Particolare della cella dove si può osservare la struttura a doppio vetro.
Nell'intercapedine viene fatto il vuoto tramite il tubo grigio
sulla destra collegato ad una pompetta.

ENERGIA DAL VUOTO

concetti e principi. (di T.E.Bearden)

Tradotto ed adattato da Reale P.I. Fortunato (kingeagle)

7.5 Uso dell'effetto Aharonov-Bohm nel MEG. (pg. 397)

Dal punto di vista dei sistemi elettrici di potenza, il nostro interesse sull'effetto AB (*vedi pag -The Aharonov-Bohm effect tradotta*) si focalizza sopra un'importante caratteristica: la chiara separazione (e localizzazione) del campo B (*la componente a spirale del potenziale di A*), lasciando il rimanente "naturale" potenziale di A non-avvolto (*uncurled*) libero di campo (*field-free*) quale flusso lineare di corrente di energia nel vuoto. Questa operazione e' iterativa, ed e' prodotta dal nucleo per ogni campo B generato nella sezione del trasformatore. In questo modo un campo B dinamico localizzato genera un campo E dinamico non localizzato, lo stesso genera un'altro campo B dinamico localizzato, che ancora genera un campo E dinamico non localizzato, etc. Il risultato e' un'estesa catena di anelli di energia del tipo ad alimentazione diretta (*feedforward*) ed alimentazione inversa (*feedback*).

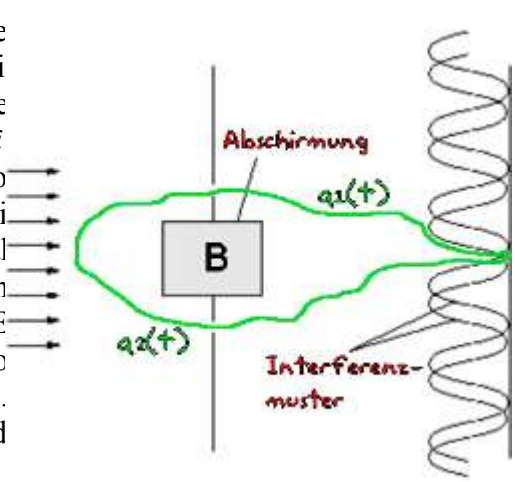


fig 1: Schizzo sull'effetto Aharonov-Bohm

7.5.1 Separazione dei potenziali spiralizzati e lineari di A.

L' effetto AB (*vedi pag -The Aharonov-Bohm effect tradotta*) e' conosciuto nei nuclei toroidali ed nei lunghi solenoidi da molto tempo. In un toroide teoricamente perfetto, per esempio, l' effetto AB separa e localizza l'intero campo **B** all'interno del toroide, mentre il vettore magnetico potenziale di **A** non-avvolto (*curl-free*) appare nello spazio circostante il toroide. La nostra nuova interpretazione ed ipotesi e' basata sul lavoro teorico dell'AIAS pubblicato nella letteratura scientifica; questo potenziale di **A** non-avvolto (curl-free) rappresenta una corrente di energia longitudinale EM (**E**lettro**M**agnetica) nello spazio non localizzata.
Ed ancora, il potenziale di **A** non-avvolto e' un flusso extra di energia elettromagnetica EM che puo' essere intercettata, aggregata ed usata mentre si usa anche la 'normale' energia del campo **B** localizzata nel nucleo. La novita' e' che il campo **E** (*campo elettrico*) nascente dal potenziale di **A**, il quale provvede all'attuale intercettazione e aggregazione dell'energia elettromagnetica EM, puo' essere reso grande a piacimento, basta manipolare il tempo di salita e discesa degli impulsi usati per perturbare il potenziale di **A** esterno al nucleo.

NdT- *Bearden et all. suggeriscono di utilizzare un oscilloscopio a otto canali, stessa base temporale, per controllare tutto il processo, costo 75.000$, sic!!. Da qui la ricerca della frequenza piu' adatta, del metodo di apertura e chiusura del circuito (switching) il probabile condizionamento del magnete permanente (Bearden scrive; No, the magnet used is absolutely ordinary. No special conditioning - selected correspondence del 10/1/2002 - ??); la ricerca del tempo di latenza nel conduttore (conduttore ritardante - charge-blocking wire, selected correspondence del 18/3/2000 verso Naudin) che alimenta il carico, etc, poveri noi! -*

Inoltre, la stessa perturbazione influenza anche il flusso di campo **B** nel nucleo, facendo apparire un campo **E** non-localizzato la cui magnitudine dipende ancora dal tempo di salita e discesa dell'impulso di perturbazione. Da qui d**A**/dt e d**B**/dt (*variazione di potenziale e variazione di campo magnetico nel tempo*) diventano la causa dell'amplificazione di energia, dove tutto l'eccesso di energia del campo E e' fornita gratuitamente dal vuoto via forme speciali di ripristino asimmetrico (*asymmetrical regauging*) e ripristino naturale (*negentropia*).

Abbiamo notato che questo meccanismo rappresenta la formazione di una curvatura spazio-temporale locale (*leggi nota 1*) e che e' possibile stabilire l'ampiezza della stessa curvatura. Incrementando liberamente la curvatura spazio-temporale locale, l'apparire di una densita' di energia EM addizionale segue **a priori**. Quindi, abbiamo ancora tutta l' energia del campo **B** prodotta dal magnete permanente, ma e' tutta confinata nello spazio

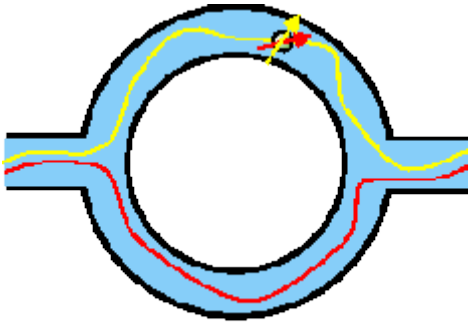
interno del toroide.Tutta l'energia dovuta, la fornitura di corrente e tensione al nucleo di ingresso, nel senso normale, e' l'energia necessaria a perturbare il campo **B** localizzato ed il potenziale di **A** non-avvolto. Ancora prima che la pertubazione provochi l'amplificazione di energia, vi e' gia' un flusso addizionale di energia che appare all'esterno del nucleo, dove il campo magnetico **B** dovrebbe estendersi normalmente. Tutta l'energia potenziale di **A** e' una extra energia addizionata all'energia del normale campo **B** che dovrebbe apparire al di fuori ma che rimane confinata all'interno del nucleo. Di piu', il potenziale di **A** non-avvolto esterno al nucleo riduce la sua ampiezza solo in modo inverso alla distanza radiale, invece il campo **B** normale, che potrebbe altrimenti essere presente in assenza di localizzazione, riduce la sua ampiezza del quadrato della distanza radiale. Questo decadimento molto meno rapido della magnitudine del potenziale di **A**, rispetto al campo **B**, puo' risultare in un aumento notevole nella distanza delle comunicazioni - comparando una normale antenna elettromagnetica con il suo campo oscillante ad un' antenna utilizzante il potenziale di **A**. Golden ha incrementato la distanza di comunicazione con la stessa potenza di emissione.

NdT- *Il potenziale di A , longitudinale al toroide, quindi non-avvolto e libero di campo, si degrada meno del campo B confinato, quindi avvolto, all'interno del nucleo;in questo caso presumo; a) il campo B. (parallel path), debba essere super confinato* + ***tutti gli eventuali campi aggiuntivi*** *(campo B)* ***che potrebbero crearsi****; b) nessuna perdita tra il nucleo monocristallino ed il magnete permanente altrimenti abbiamo la vanifica dell'effetto AB; c) costruzione ed accoppiamento accuratissimo (dalle foto non risulta - Bearden fa spesso riferimento alla precisione degli accoppiamenti nucleo magnete-; d) ricerca della giusta combinazione tra monocristallino e magnete permanente, per incrementare al massimo l'effetto AB (purtroppo un misuratore di campo e' assolutamente necessario; bisogna accertarsi che il campo/i B sia/no confinati; nessuna dispersione di campo/i. L'innesco di un campo che genera un campo che genera un campo etc. ti porta lontano.*
-Bearden avvisa che il processo e' altamente non lineare- ***Hence there are very novel "multiple feedforward and feedback" regenerative loops in the MEG's highly nonlinear operation, as well as chaotic oscillations.- pg.397-Energy from the Vacuum.***
(diversi ricercatori italiani sono in prima linea in questa nuova disciplina; cioe' come rendere lineare un processo non lineare o caotico; Fronzoni, Pettini, etc- sono c.... amari!- scusate lo sfogo)

Nota 1 - Esiste una curvatura specifica dello spazio-tempo nel nucleo del MEG, che rappresenta il campo magnetico B confinato (il potenziale di A a spirale localizzato), ma esiste anche un'altra differente curvatura dello spazio-tempo all'esterno della zona di localizzazione, riempito con il non-localizzato non-avvolto (curl-free; non spiralizzato) potenziale di A, quale zona di flusso non localizzato di energia nello spazio. Di piu', nel MEG noi liberamente cambiamo e incrementiamo a volonta' l'ampiezza di queste curvature spazio-temporali, per mezzo della ratio di variazione dell'energia in ingresso invece dell'ampiezza, e quindi facilmente incrementiamo la magnitudine della densita' di energia dello spazio locale sia dentro che fuori dal nucleo. Questo e'il principio fondamentale dell'amplificazione di energia nel MEG (ripristino gratuito).

Con l'applicazione dell'effetto AB, gratuito, prodotto dal materiale del nucleo in combinazione con il magnete permanente, appare in modo rigoroso molta piu'
energia EM dal vuoto locale dell'energia che si introduce quale "pagamento" di energia in ingresso. Ancora, questo e' possibile perche' il sistema e' un sistema "aperto" (NESS systems) lontano dall' equilibrio dei processi del vuoto attivo quali l'apparire del potenziale A e l'iterativo apparire del campo extra di B e del campo E.

7.7 Esperimenti nello sviluppo del MEG.


Anello Aharonov-Bohm

Nei nostri esperimenti con l'effetto Radus discusso nel capitolo 6, paragrafo 6.4.5, abbiamo gia'eseguito un lavoro estensivo nell'aprire e chiudere (switching) i flussi magnetici utilizzando una parte dell'energia intercettata dal flusso magnetico stesso. Abbiamo anche sperimentato diversi nuclei per trasformatori e loro varianti, includendo anche il nuovo nucleo nanocristallino stratificato.

Durante i nostri esperimenti, abbiamo notato una cosa straordinaria. Con alcuni moderni nuclei costruiti con materiali nanocristallini, ed utilizzando un magnete permanente per creare il

flusso-B, *abbiamo notato che il materiale del nucleo estraeva e conteneva essenzialmente tutto il flusso*- B generato dentro il nucleo.
Misurazioni locali appena fuori i poli del piccolo ma potente magnete al neodymium-iron-boron, mostravano pochissima dispersione del flusso-B nellospazio intorno! In breve, avevamo scoperto come costruire un sistema magnetico che, non solo localmente, propagava solo il vettore magnetico del potenziale A non-avvolto, senza la necessita' di utilizzare energia in ingresso. Avevamo realizzato di aver scoperto un modo meraviglioso e gratuito per ottenere un eccellente effetto Aharonov-Bohm, simile al modo in cui un perfetto toroide localizza il campo-B dentro il suo nucleo, con il potenziale di A non-avvolto che appare nello spazio che circonda il toroide. Il vantaggio del nostro metodo rispetto al toroide e che noi non dovevamo fornire ne corrente ne tensione per ottenere il flusso-B localizzato e il non-localizzato potenziale di A non-avvolto.

Di piu', se noi perturbavamo il flusso del campo-B, interno al nucleo, di conseguenza perturbavamo il potenziale di A che circondava il nucleo. Da entrambe i sistemi perturbati potevamo produrre intensi campi -E (*campi elettrici*), ed in concomitanza, alte tensioni capaci di condurre piu' "potenza", attraverso il nucleo secondario della sezione del trasformatore, della potenza iniziale necessaria per generare l'apertura-chiusura (*switching*) e la perturbazione.

Noi possiamo provarlo facilmente perturbando il flusso localizzato del campo-B, e quindi del potenziale di A, a bassa energia. Abbiamo provato che incrementando la ratio del tempo di salita e decadimento della bassa energia EM fornita per perturbare, potevamo produrre grandi campi-E, inclusi da 1000 a 5000 volts (anche 20000 volts!), se desiderati, disponibili ai capi della bobina del secondario (*secondary coil)*. Abbiamo anche provato un'altra cosa: il materiale del nucleo nanocristallino in alcuni arrangiamenti autoregolavano la loro permeabilita', continuando a localizzare i campi perturbati ed i loro flussi, mentre rendevano disponibile il campo risultante di E facendolo passare esterno al nucleo.

Il materiale nonocristallino altamente stratificato non produceva correnti parassite (*eddy currents*), quindi niente calore, anche in presenza di fortissimi oscillazioni del flusso del campo-B e fortissime intensita' del campo-E nello spazio circonstante e nell'avvolgimento di uscita (secondario) della sezione del trasformatore del MEG.

La prova assoluta che il nucleo variava la sua permeabilita' era la mancata differenza di fase tra la tensione e la corrente in uscita nella bobina (*coil*) di uscita. Si e' riscontrata una cosa stranissima: la corrente in uscita era in fase con la tensione in uscita entro due gradi.
In breve, in alcune circostanze, la bobina avvolta intorno al nucleo nanocristallino esibiva essenzialmente un' interazione con il campo-E (*campo elettrico*), con piccolissime perdite del campo-B - qualcosa considerato impossibile nei libri di testo di elettrodinamica. Questo significa che l'eccesso di campo-E, prodotto dal potenziale di A perturbato nello spazio intorno al nucleo, reagiva con gli elettroni della bobina di uscita in maniera puramente elettrica! (*leggi NdT sotto*)
Questo puo' avvenire perche' il campo-B, prodotto localmente nella bobina di uscita, dal campo variabile ed interagente di E, era in effetti istantaneamente attratto e mantenuto dentro il materiale del nucleo al momento della sua nascita in modo da non reagire magneticamente con gli elettroni della bobina di uscita del secondario.
Questa e'una drammatica localizzazione della legge di induzione di Faraday.
Quale conseguenza, un'intero gruppo del MEG usa interazioni puramente elettriche con la bobina di uscita del secondario del trasformatore. (212)

> 212 *Ancora una volta poniamo l'accento su fatto che le reazioni del campo magnetico avvengono, e che i campi-B sono in effetti generati.. Ma i campi-B risultanti sono anche attratti all'interno dal materiale del nucleo e quindi localizzati. Anche il campo magnetico B prodotto nelle bobine sia in ingresso che in uscita sono localizzati in questo modo, ma non gli viene permesso di interagire con la corrente di elettroni interna alle stesse per generare la convenzionale differenza di fase di 90 gradi tra la tensione e la corrente.*

NdT- *forse per rendersi conto che non abbiamo perdite verso l'esterno, dei campi magnetici comunque generati, basta controllare continuamente la fase in uscita tra tensione e corrente, che devono risultare in fase. Se necessario uno sfasamento puo' essere creato ad arte successivamente.Il suggerimento di un oscilloscopio multicanale appare evidente.*

Piu' esattamente, il materiale del nucleo attira tutti i campi magnetici generati dalle bobine di uscita, lasciando solo la reazione elettrica esterna al nucleo, inclusi i conduttori delle bobine, che sono avvolti, necessariamente, esterni al materiale del nucleo.

NdT: *avevo gia' indicato in precedenza le bobine di uscita quali punti di convergenza dell'effetto AB. La parte sorgente dello stream elettronico e' creato dal magnete permanente, bipolo che attrae continuamente elettroni attraverso l' asimmetria (lo switching) creata nello spazio-tempo locale (teoria relativistica).*
Dobbiamo lavorare di piu' sulle bobine del secondario perche' il tempo di decadenza dell'asimmetria e' ridottissimo; bisogna aumentare il tempo di latenza degli elettroni nel conduttore (charge-blocking wire).
Differenza temporale tra il tempo di switching,(densita'dei campi magnetici esterni), interazione di quest'ultimi con la bobina di uscita, disponibilita' verso il carico.

In ogni caso, il flusso del campo magnetico B perturbato e localizzato dentro il nucleo, genera il normale campo elettrico E che ci si aspetta, quale funzione della ratio di variazione del campo-B. Questo campo elettrico E non viene localizzato nel materiale del nucleo, ma si propaga all'esterno del nucleo ed interagisce con gli elettroni della bobina di uscita del secondario della sezione trasformatore del MEG. Ripetiamo, la magnitudine di questo campo E e' una funzione della ratio di perturbazione del flusso dal campo-B localizzato nel nucleo.

Il nucleo nanocristallino possiede anche un' eccellente risposta all'alta frequenza, con correnti parassite bassissime. In questo modo possiamo "accordare finemente" (*fine-tune*) il tempo di salita-discesa degli impulsi di perturbazione.
In questo modo realizziamo diversi tipi di "amplificazioni di energia" nel MEG:
i) l'amplificazione della magnitudine del campo esterno E che interagisce con i collettori esterni (tipo i coils (bobine) delle uscite dei secondari) per mezzo del potenziale di A, (non-localizzato, esterno e non-avvolto).
ii) l'amplificazione della magnitudine di un campo E addizionale che interagisce con i collettori esterni (quali i coils dell'uscita dei secondari) per mezzo della perturbazione del campo-B localizzato e confinato all'interno del materiale del nucleo
iii) l'utilizzazione di un grande numero di derivate di alto ordine generate dai campi B ed E
iv) aggiungendo altri collettori (sia coils avvolti esternamente al nucleo, sia
" circuiti riceventi per antenne" si genera potenza addizionale per carichi piu' onerosi, sempre con la stessa perturbazione in ingresso.

NdT: *salto un pezzo di pag. 411 perche' ripete esattamente cio' che e' stato detto in precedenza. Noterete che il sign. Bearden e' molto ripetitivo.*

> **Man mano che vado avanti nella traduzione aggiorno sia la traduzione stessa, per una migliore comprensione, sia le note del traduttore, nelle quali raccolgo le mie impressioni e le informazioni che potrebbero aiutarci, recuperate dal sito di Bearden.**

Fine [kingeagle-23/7/2003]

Bowman Permanent Magnet Motor

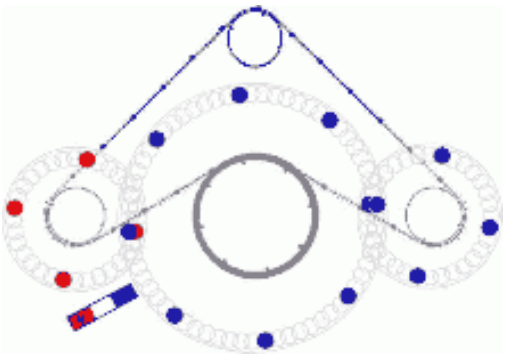
1954 variation of the Peregrius (Perrigrinus) motor (1269). Purportedly ran for 1 year, after which the Alcomax magnets were tested and shown to have not diminished in strength.

Stat tuned.

Images

Set 1

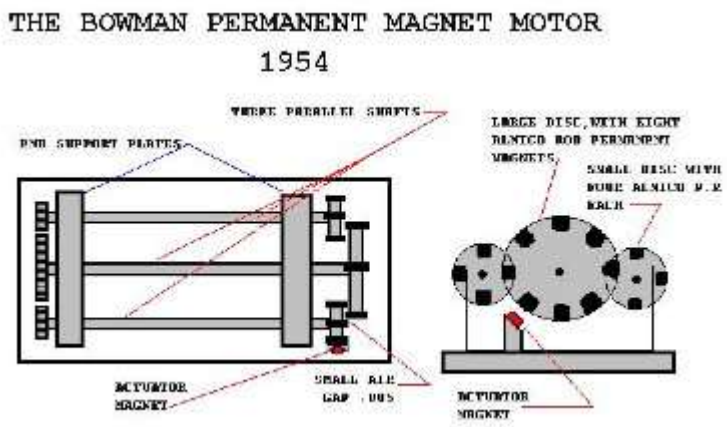
http://fdp.nu/bm-movie/default.html



click

Set 2

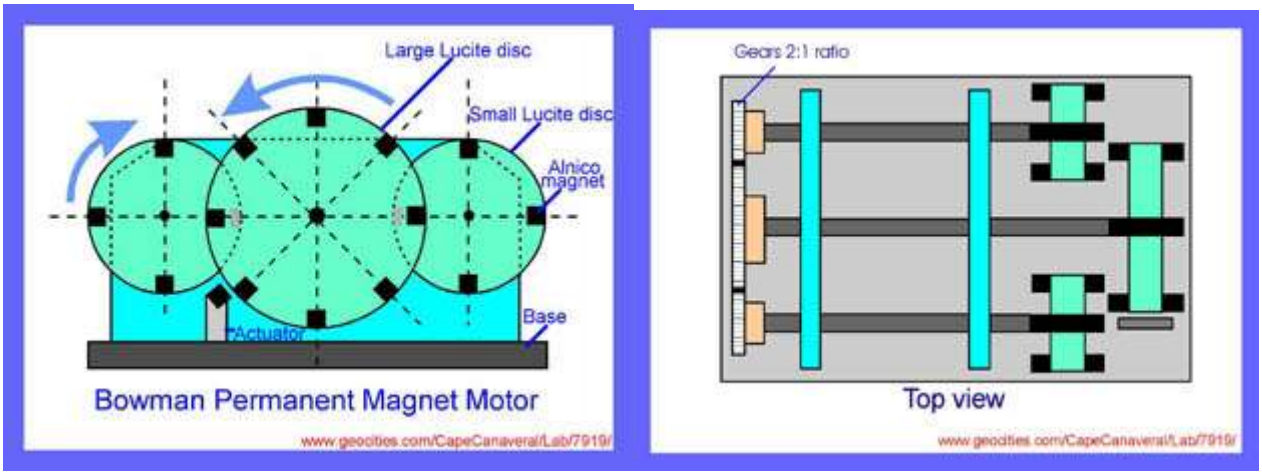
http://www.icehouse.net/john1/peter.html



click for enlargement

Set 3

from http://www.freeenergy.co.za/3know/build/Bowman%20Permanent%20Magnet%20Motor_files/Bowman%20Permanent%20Magnet%20Motor.htm



Reviews

- **The Bowman Permanent Magnet Motor** (Copy of another web page that no longer exists) - Description of motor and of inventor.
- **Bowman Permanent Magnet Motor Derived from Peregrius Motor** - John Bedinini posts transcribed version of what is thought to be the first presentation of a permanent magnet motor in 1269, and describes Bowman resurrection of the device in 1954.
- Brief mention on Bessler wheel forum - "Some free energy people who claim to have built working permanent magnet motors often claim that after a period of long duration operation the magnetic flux densities of the magnets are tested and there is no enhanced decrease as you would expect if the above were true, one famous example of this is in the case of Lee Bowman a Californian inventor who built a strange looking device that had three wheels with magnets positioned around them, (the wheels were geared to each other to synchronize their movements). This device was apparently run for a year under load! after that Mr. Bowman took all his Alcomax magnets that he had used and sent them to the manufacturers, apparently there was no decrease in the field strength."

Not to be Confused with

- Bowman Motors Div., Hankscraft Motors, Inc.. Reedsburg, WI

See also

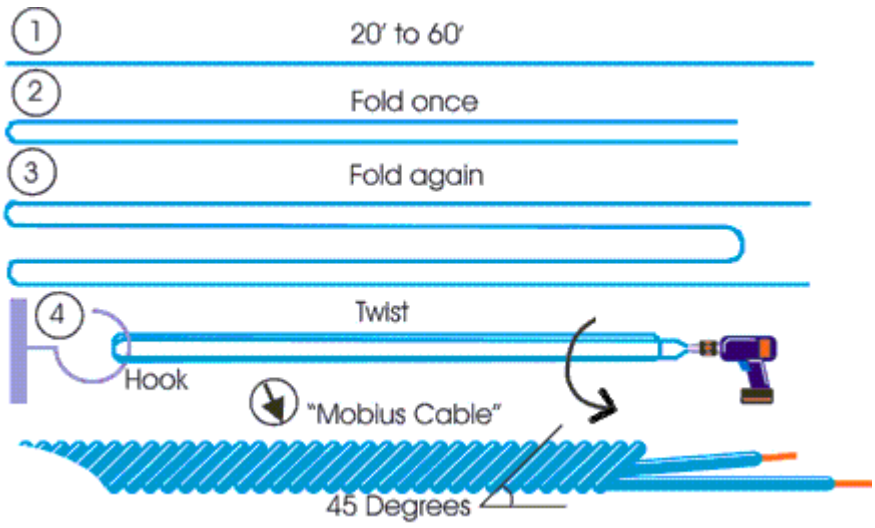
- **Magnetic Motors (Index)**

Fonte: http://freeenergy.greaterthings.com/Directory/MagneticMotors/Bowman/index.html

Fonte: http://www.littlemountainsmudge.com/mobiuscontinuosknot.htm

How to wind 'continuous knot' or 'toroidal' style mobius coils

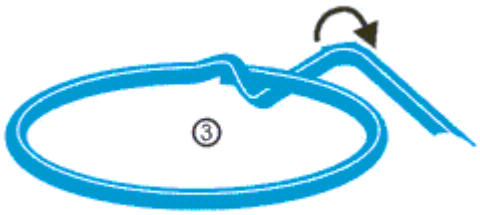
First - Make yourself a "mobius Cable" to wind the coil from. While you can wind a mobius coil from single strands of wire, it certainly seems to be a lot more potent when you use a cable made in the manner described here to wind the coil from. Take a length of wire, and double it back on itself twice as shown to the right. Pull a little slack out at the ends of the wire, this will be the leads of the coil when it is finished. You should leave yourself at least 2" for leads, and it is a good idea to give yourself 6" or so, you can always trim the leads to the required length when the coil is finished. It is much easier to use a drill to twist the wires than doing it by hand. Run the drill in reverse and you will get a clockwise twist to the cable. I recommend that you wind the coil itself clockwise also.



1. - Starting with the end of the cable which does not have the leads, make a circle in the clockwise direction about the size you want your finished coil to be. You can wind the coil around a core (xtal for your SP) or you can wind the coil by itself if you are using stiffer wire.

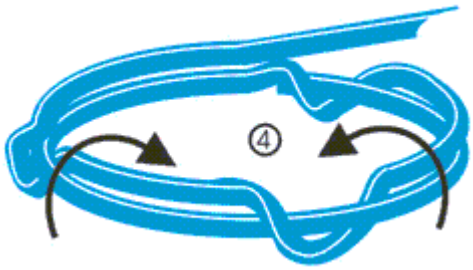
2. - When you complete the first wrap, feed the wire through the center of the circle so it wraps around itself in the clockwise direction as shown. Use a little glue (hot melt or silicone preferable) to hold the wire in place where it crosses over itself.

3. - Start winding the wire around the circle in the clockwise direction again.



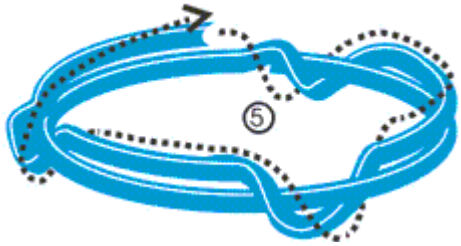
4. - Go around the circle about one third of the way, and wrap the cable around itself again, just like in step 3.

Go around the circle another third of the way, and do the same thing again. You should have 3 wraps around the cable for each time you go around the circle.



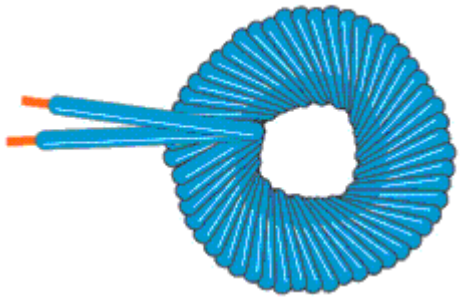
5. - Continue this way, repeating step 4, until you have used up all of the cable. As shown to the right, stay on the same side of the previous wrap with each new revolution.

The 'knots' will run together.



When you are finished, use a little glue to hold the end of the cable in place.

The coil should look like this when you are finished.



Hopefully, the pictures will be of more use to you than the words, as it is really quite simple to do, just a little cumbersome to try and explain in words. Basically, you just keep wrapping the cable around itself (clockwise) as you go around the circle. With a little practice, you will find that the windings form a pattern, and if you make a mistake it will be obvious as it does not fit the pattern. This coil tends to hold its shape better than the single knot style, and I generally just wind it by itself, not on a core. You should measure the diameter of the object you wish to place in the coil as a core when it is finished, and start with a circle a little larger than the diameter of the intended core.

I recommend using a Quartz, 'Moquis Marble', or Kyanite core for mobius coils, as the energy generated by a mobius coil (scalar waves) can be biologically disruptive when in its raw state. This information is primarily intended for those who wish to use mobius coils as a means of exciting Quartz crystals or ORgonite, and you are responsible for your own safety. By making this coil you agree not to hold me responsible for any damages your experiments may cause to persons or property. Mobius coils generate scalar waves. Scalar waves can interfere with and/or damage electronics when high voltage is put through them. For the purposes of ORgone research, low voltages are sufficient to drive mobius coils.

Click here for all the info you need to get started making fully functional basic HHGs. There will be more info to come as time permits, I will be adding some modifications you can make to your TBs/HHGs to enhance their effects, some alternate designs for TBs/HHGs, and a list of different minerals one can use for orgonite devices, and how to use them. For those who are interested, there is a brief explanation of how orgonite works linked above.

Jon Logan

Fonte: http://www.americanantigravity.com/plasmavolt.html

Betavoltaic's PlasmaVolt Technology

By Tim Ventura, August 7, 2003

World Exlusive from American Antigravity: Batteries that run for years on end, promising endless energy from a clean, safe, environmentally-friendly fusion technology. This is the one man's incredible journey into a branch of physics that isn't supposed to exist - low energy transmutation of elements.

It's the middle of August and I'm standing in the basement of a house a few miles outside of Redmond, grateful to be in a cool area. The room itself is as large as the main floor of the aging brick house above it, but it's a completely separate entity - the only entrance is a semi-hidden door with a tarnished padlock hanging off the edge of it.

I hadn't seen the entrance to the basement I was now in from the street, due to an abundance of sun-bleached weeds blocking the view through the short driveway. The house itself hadn't been much more visible, as the bricks on the outside had aged enough to make it seem almost invisible next to the other houses in this middle-class suburban neighborhood. This house was only a few miles outside of Redmond, and just a few blocks away from my own home, but as I'd entered through the door I'd realized that this was an entirely different world than anything in the surrounding area.

From what I can now see of the basement's interior, it appears that this house was built in the 1960's or 70's - it certainly doesn't appear new, but I'm also not smelling that thick damp musk that accompanies the interior of a lot of older homes in the Pacific Northwest when they begin to age.

A series of metal racks fill the wall space along most of the interior of the basement - a few of the racks have recognizable objects in them, such as a set of 30 or 40 large glass jars containing what appears to be herbs - I can read names like "Ginseng" and "Gotu-Kola" scrawled in magic marker on the screw-top lids. Not everything down here is immediately recognizable, though - several pieces of large equipment are strategically placed amidst the racks, and while I recognize one of them as a gigantic oscilloscope, the rest are unknown. Most of the equipment in the lab can be identified as electronics equipment, but there is so much of it that it tends to blur together into a gigantic collection of parts and gizmo's - a visual collage of technology in a very raw form.

This basement is the "secret lab" of experimenter Merlin Del Orion - a white-bearded gentleman in his late 60's that bears more than a little resemblance to his namesake from the age of Camelot. In addition to the physical resemblance, a slim pair of spectacles adds a bit more to his personal mysticism. I suddenly realize that perhaps I'm projecting - in addition to being a former Boeing employee and long-time electronics experimenter and engineer, Merlin is also one of the few practicing alchemists in the modern world. While in many ways a wizard, he is also well versed in contemporary science.

Merlin pauses to adjust his spectacles and frowns slightly, with one eyebrow curling up just slightly. "Betavoltaic cell?" he asks, questioningly. I've just finished telling him about my encounter with businessman and inventor Michael McDonnough, and a remarkable new technology that I've been building a page for on the American Antigravity website. "It's a nuclear battery," I tell him, "using a method of stimulating the decay of a nuclear isotope to produce abundant, safe and clean electric energy. I don't know if it's for real or not, though, because I haven't actually seen one yet."

Merlin walks over to a shelf in one of the racks covering the entire back-wall of the basement. I can recognize an electric typewriter and several other pieces of electronics test-equipment on the shelf, but what he pulls out of a shadowy area is unrecognizable. "Oh, they work," he says, "Here's one that I've been tinkering with for the last few months".

The device that Merlin is holding is obviously a piece of electronics equipment, but I can't really place many of the parts on it. Mounted on a 1-foot square epoxy circuit board, I recognize the familiar dull-green plastic case of a high-voltage flyback transformer, and after realizing what that component is I then recognize the multi-vibrator circuit that feeds it - a set of two transistors set to pulse at a specific frequency through the flyback to power the device.

Flyback transformers are used in television sets and HV-experimental equipment to step up a low-voltage input current to a high-voltage output, and can be further connected either directly to a rectifier diode or instead to a Cockroft-Walton voltage multiplier, which then steps the voltage up even further. These devices are almost always used in circuits with a high-voltage direct-current output, probably because it's much easier to simply use a neon-transformer than go through the trouble of putting together a flyback circuit if high-voltage AC is required.

In this case, I can't recognize the circuits that the flyback is connected to - they're utterly meaningless to me, and they appear to connect to an even stranger device - a round metallic post with a metal ball mounted on the top of it, which gives the entire board and its apparatus the appearance of being a scale-model of an airport traffic-control tower assembled by a deranged electronics technician.

"Wait a second", I tell him, "this nuclear battery technology is totally new stuff - even Michael McDonnough doesn't have a prototype that he can demonstrate for me yet. You're actually telling me that this device is a working model of a nuclear battery?"

Merlin responds by launching immediately into an explanation of how the device works, and explains to me that the flyback transformer powers a circuit that provides the stimulating charge to the nuclear isotope, which in this prototype is contained in the metal ball located at the top of the post. It turns out that this isn't a strange model of an airport traffic control-tower after all, and I can see what he's talking about in more detail as he twists at a seam in the middle of the metal ball and lifts off the top portion for me to look inside. The ball contains a collection of maybe 20 or 30 small pellets. From their dull-gray metallic color, these might as well be made of lead or pewter, but I know better as I realize that they are the Americum-241 pellets used to provide ionizing radiation in smoke detectors. "I had to pry these out of the little epoxy cases that they're normally housed in within the smoke detector", Merlin tells me, "and they're safe as long as you wash your hands after touching them."

Merlin explains to me that this device must be primed initially by being connected to the flyback transformer. After external power has been applied and a static-charge initiated through the special control-circuits running into the isotope chamber, the isotope becomes self-sustaining for a period of time and generates its own electricity as the decay-rate of the Americum-241 accelerates and releases a steady stream of high-voltage electrons. Merlin's device isn't perfect though - it won't self power indefinitely after it has been initially activated. "I put it on the oscilloscope a while back," he says, "and it basically rings. It doesn't generate enough electricity to completely self-power, and that's mostly because of inefficiencies in the feedback-circuits that I've designed. The result is that as the power winds down the overall static-charge in the device decays very slowly when compared with an inert test-sample, which provides a ring-curve on the oscilloscope. I'm planning on modifying the circuitry to allow it to completely feedback the electricity that the isotope generates through the stimulation circuit in the near future - that should let it run indefinitely, and after that I can attempt to draw high-voltage electricity from it to power other projects. For the moment, though, it just rings ..."

Merlin's nuclear-battery does more than just ring, though - and both he and I know it. After spending a good 4 hours earlier in the week on the phone with Michael McDonnough, I know that the electricity given off by Merlin's Americum-241 battery when it 'rings' is accompanied by an enormous surge of nuclear-energy in the form of high-energy neutrons and protons. I know that Merlin also realizes this, because the inside of the reflective metal-ball that the isotopes sit inside is lined with at least 1/8th inch thick lead-shielding. After taking into consideration the possibility that I might want to actually have children in the future, I decide not to ask him for a demonstration of the device - at least not today.

Betavoltaic's Two-Stage Process

It's August 2003 - almost exactly one year after Merlin's demonstration of the stimulated decay cell, and I'm

sitting at a desk in the basement of my home on the phone with Michael McDonnough. At 40 years old, he's old enough to be experienced in business, but still young enough to follow his dreams. The dream that we're discussing is his vision of environmentally-friendly stimulated-decay technology in the commercial marketplace, and he seems sensible and motivated enough that he just might pull it off.

""Hold on a second", he tells me. I can hear him talking to somebody else on his end of the phone, but it's difficult to tell what he's saying. After a moment he's back, "Sorry about that, Tim - I'm in the living room because it's not as hot here, but this is a busy area." In my location in the Pacific Northwest it's a cool 55 degrees outside and raining, but at his residence in Tulsa it's 11 o'clock at night and still sweltering from the August heat wave.

I've been telling McDonnough about the article that I'm putting together on the stimulated decay technology and the Americum-241 battery that Merlin's shown me. "You know," he says, after a pause, "devices like that just aren't commercially feasible at the present time. For instance, nobody is going to be able to get onto a plane with a cell-phone powered by a Strontium-90 nuclear battery. It would set off alarms all over the place -- that's what makes our new PlasmaVolt technology so remarkable - when its not in operation its basically inert."

The basis for Betavoltaic's technology is a clean, safe version of stimulated nuclear-decay technology based on the theoretical research of Dr. Ruggero Santilli and the experimental research of Ted Gagnon. Dr. Santilli's research had shown that with a specific static-charge applied to a nuclear isotope it can be made to break down at a sustained rate in comparison with a control sample.

What this means is that a beta-emitting isotope (one that emits primarily electrons as it decays) can be forced electronically to emit the same number of electrons in an hour as it ordinarily might emit in a year or more. Therefore, instead of a scant-few electrons being emitted from the isotope under normal conditions, the same isotope in a charge-stimulated environment may emit enough to actually comprise a current - perhaps micro amps or even milliamps worth of electricity.

This is what Merlin had shown me - a first generation Betavoltaic cell. The device operates by placing a high-voltage waveform on a small sample of beta-emitting isotope, which then emits electricity as the rate of decay increases.

Michael McDonnough has taken the research of Dr. Santilli one step further, by combining it with the experimental work of Ted Gagnon to create a two-stage process for a Betavoltaic commercial product line. Thus, the PlasmaVolt was born. This device comprises the second part of the Betavoltaic technology base - an environmentally-friendly fusion device, built to deliver electricity reliably for years on end without any harmful byproducts.

The PlasmaVolt is a device developed by inventor and experimenter Ted Gagnon that uses a plasma-vortex to allow the generation of electricity in a low-pressure reactor cavity. While the details of the PlasmaVolt are still proprietary, the device is covered under both US and International Patents, and McDonnough tells me that they have a prototype device on site that has been delivering a constant 50-watt electrical output for several months. In addition to generating electrical energy, the PlasmaVolt generates K40, which McDonnough plans to use in Betavoltaic's nuclear-batteries, due to its high-level of safety and very long decay times.

"Ted Gagnon's technology utilizes inverse quotient potential envelopes," McDonnough said, "This involves loading frequencies (the envelope) corresponding to quantum potentials into a proprietary liquid formula in which the Betavoltaic material is suspended. Once the quantum potentials have been applied to the liquid by the means of a caduceus-coil acting as a tuned antenna, the beta-emitter in solute is perpetually stimulated to emit electrons as a result of these quantum potential states."

The result of Gagnon's technology being utilized in conjunction with the low-energy transmutation research of Dr. Santilli is that isotopes can be utilized with such a normal low decay rate that they are considered for all intents and purposes to be "inert materials". McDonnough tells me that "The primary isotope is K40 (an isotope of Potassium), with a half-life of approximately 1.7 billion years. It has an 89% ratio of calcium formation, featuring a double beta-decay with energy levels of 1.311 Mev (Million Electron Volts)."

Essentially this means that K40 takes so long to decay under normal circumstances that its basically an inert

substance - but when it does decay it releases an enormous amount of energy. "It's the perfect fuel for beta-decay because if the Betavoltaic cell is accidentally ruptured during operation K40 goes back to being extremely low in activity," McDonnough tells me, "K40 allows us to throttle the isotope decay. It's a nearly perfect process, because it only releases energy under stimulation, and in the event of a critical failure it immediately ceases energy production." In science, K40 is stable enough that it has little scientific use other than in studying biological systems using a highly bio-available and generally stable isotope. Betavoltaic expects to not only be the only market for this substance, but also expects to be the only supplier - it turns out that K40 is a byproduct of the contained PlasmaVolt power-systems that they plan on manufacturing this year.

The PlasmaVolt

The PlasmaVolt is a device developed by Ted Gagnon that creates a sustained plasma-vortex for a unique method of energy production based on the low-energy transmutation of elements. "The PlasmaVolt Technology will allow us to produce unlimited amounts of K40 isotope as per Santilli's low-energy transmutation theory," states Michael McDonnough, "Our existing prototype PlasmaVolt has already produced over 6 grams of nearly pure K40 this year." He begins to get excited while telling me this, then elaborating, "with the exception of K40 deposited on Earth from distant supernovae events, we've got the only source for this isotope on the planet! The K40 produced as a byproduct in commercial nuclear reactors is thoroughly contaminated with heavier isotopes, and produced only in tiny quantities. We've got 6+ grams of the stuff, and it's almost perfectly pure!"

One of the reasons that McDonnough is so excited about the production capability of Potassium40 is due to the sheer energy storage potential of the isotope. He tells me that "A kilogram of K40 has the same energy content as 35,000 gallons of gasoline"....assuming, that is, that it can be made to release that energy using the proprietary Betavoltaic technologies. Michael McDonnough insists that this is not only theoretically possible, but that its been demonstrated in the lab, "Ted Gagnon has already reached 200% stimulation using a very initial and inefficient frequency envelope, and he is currently conducting research on our behalf to create a much more efficient envelope for commercial use."

The PlasmaVolt almost looks like a tall, skinny blender in appearance -- it consists of a long, thin quartz tube that rises up from a square-black base containing control electronics. A coil of wire is wrapped around the upper-most portion of the tube, and obscures the interior of the otherwise transparent container from view. Located underneath the coil of wire, out of sight from my prying eyes, is the cathode at which transmutation occurs and energy is created. McDonnough tells me that the PlasmaVolt is impossible to replicate without knowing the shape of the cathode and composition of the anode.

Functionally, the PlasmaVolt operates in many ways as a conventional low-pressure plasma-reactor. The elongated tube is pumped full of Hydrogen, and the pressure is then reduce with a vacuum-pump to the desired operating pressure to maximize energy production. A unique electromagnetic charge is used to stimulate the hydrogen into a rotating column of energetic plasma, and the exterior coil is then used to reclaim that energy to prevent excessive loss. The energy input and reclaimed through the electromagnetic coil apparatus wound around the tube occurs nearly without loss, because the low-pressure of the gas allows energy input and extraction from the kinetic rotational energy of the hydrogen without many of the normal friction problems occurring in a higher-pressure container.
Main power from the PlasmaVolt is drawn from the cathode at the top chamber. Obscured from view by the coil apparatus, the cathode facilitates low-energy transmutation of Hydrogen into K40 by a unique and innovative method. What McDonnough claims is occurring inside the device is that Hydrogen molecules are first split from H2 into single atom by the high-voltage ionizing charge, and are then reduced even further by having the same ionizing energy strip the electron from the Hydrogen atom -- leaving only a single proton, which is all that an ionized Hydrogen atom consists of. The transmutation process is supposed to involve these single protons descending into the seed-material of the cathode to build it up, which eventually results in the production of K40. Most people are aware that the heavier elements consist of both protons and neutrons -- from what I've been able to gather protons are added easily via the addition of ionized hydrogen to the cathode structure, and the neutrons are supposedly created through an extra reactive-step in line with Santilli's low-energy transmutation theory.

The idea behind the PlasmaVolt seems similar in a very general sense to what is believed to occur during the infamous Pons and Fleischman "Cold Fusion" process so rigorously investigated during the 1990's. While the scientific community in general remains very skeptical about the Cold Fusion concept, a growing body of scientists is now convinced that putting Hydrogen-ions in close proximity with heavier metals can allow low-energy transmutations to occur that release energy in the process. In the case of Cold Fusion, the method involves immersing an anode and cathode in a body of water made conductive through the addition of specific salts - the PlasmaVolt takes this idea one step further by allowing the effect to happen in a plasma chamber, where the higher energy-levels of the ions and increased reactance should facilitate the production of larger amounts of power.

The PlasmaVolt is currently patented under both US and international patenting authorities, and Betavoltaic is in the process of having both of those sets of patents assigned from the current holders to themselves prior to the launch of their initial product offerings.

McDonnough indicated that the PlasmaVolt technology will reach the market much sooner than the K40 Betavoltaic technology will, mostly because Betavoltaic Incorporated plans on recycling used PlasmaVolt cells as their primary base for obtaining K40 for the Betavoltaic cells. It's a two stage process: McDonnough expects commercial PlasmaVolt systems to begin going on the market in early 2004. The K40 isotope that these cells produce as a byproduct will be extracted during recycling for use in powering the Betavoltaic power-cells that BVI intends to launch commercially within the next 18 months.

The initial product launch utilizing the PlasmaVolt power-cells is targeted towards the computer-industry - more specifically, McDonnough tells me that the best market segment to target is Uninterruptible Power Supplies (UPS) systems for commercial computers. He believes that the 400-watt PlasmaVolt will serve in this capacity well, as it should be capable of providing continuous operation producing 400-watts of power for up to 2 years. "The Plasmavolts will look like oversized vacuum-tubes", he tells me, "They're going to look really cool....imagine the engine-core from the Starship Enterprise, and you start to get the idea." Despite the look of the device, he figures that the 400-watt PlasmaVolt should measure about 19x14x4 inches - small enough to fit inside a suitcase sized device, and weighing in at only 8 pounds. This is important for products like backup power-supplies, as space is at a premium, and McDonnough hopes to also come up with a rack-mountable version of the device for direct storage in data-center server-racks. In the rack mountable version of this concept, he envisions the tubes being pluggable into the rack, meaning that by simply opening the rack and removing the tubes one at a time you can maintain constant power and still swap out old Plasmavolts.

Soon to follow on McDonnough's product list is the planned development of a self-powered "luggable" supercomputer. "This would be great for military applications", I told him, keeping in mind the news footage of server-farms and remote power-stations currently being toted around the Iraqi countryside by US personnel. He envisioned something like a machine incorporating a 19-inch TFT-LCD monitor, 8-gigs of RAM, 500-gigs of hard-drive space, and twin 2.6 gigahertz Xeon processors. "With the PlasmaVolt providing power for up to 2 years continuously," he tells me," power-intensive computing device like this suddenly become much more portable." I guess that he has a point - in my experience with the Mil-Spec "toughbooks" that AT&T Wireless relied on for field-operations computing, a lot of performance ends up being sacrificed in order to get every once of use out of the ever-too-small battery packs.

Non-Stimulated Nuclear Batteries

Betavoltaic's two-stage approach isn't the only approach to providing electrical energy directly from beta-decay, although admittedly it may be the safest. In December 2002 I had the opportunity to find out about conventional nuclear beta-decay batteries during a call to inventor and scientist Bob Lazar, formerly of Area 51 fame. Bob became a media sensation when he went to the press in 1989 with a story about being an employee at Area 51 hired to reverse-engineer captured UFO's - Lazar now runs the United Nuclear company in Arizona, which specializes in (among other things) manufacturing Geiger counters for use by the government and several commercial organizations. The United Nuclear website features a collection of naturally-occurring radioactive rocks on the front page that Lazar has collected from trips to the desert, which prompted me to ask Bob if he'd ever considered building a nuclear battery with any of them. "Sure," Lazar replied, "using a piece of radioactive rock to build a simple nuclear battery is easy. You simply get a glass vial and run a wire into the glass until it

touches the rock - this is your positive potential. You then suspend another wire inside of the glass vial, but not touching the rock - current will flow between these two wires, although it won't be a large amount, and you can't use it for much."

Lazar told me that he'd actually built two or three batteries like this, and it's a relatively simple and inexpensive process to do (assuming that you have a radioactive rock to start with). A nuclear battery built in this manner is a non-stimulated device, and has several drawbacks. The major drawback is that they don't produce an appreciable amount of power, and use a substantial amount of isotopic rock in the process. Another drawback is that the naturally-occurring radioactive isotope that Lazar had used emits not only electrons, but also a fair amount of neutron and proton radiation - which means that its probably not suitable for a cell-phone battery, even with shielding. The final drawback is something that Lazar mentioned to me nearly on accident. "You know," he said, "I can send you one of them. I can send you one of the nuclear batteries that I've built - I think that you might get at least a couple of milliamps of high-voltage current from it. But now that I think about it, the major problem with mailing it to you is the fact that you can't turn these things off.....it'll be producing a high-voltage trickle of charge all the way through the postal system, which will set off all sorts of alarms."

Biefeld-Brown Applications

My interest in Betavoltaic cells began primarily with regard to the Lifter technology. The Biefeld-Brown effect levitation technology requires a high-voltage direct-current electrical output, which just happens to be the native-output for Betavoltaic cells. Under stimulated decay conditions, electrons are emitted from the isotope at extremely high-voltages, and as they build up on the gold-plated internal collectors, the resulting charge is also a high-voltage electrical potential.

The conventional power-source for Lifter technology is based on a Cockroft-Walton voltage multiplier, which literally just an array of high-voltage diodes and capacitors that are charged and discharged cyclically by a flyback-transformer. The 50,000 volt power-supply that I use from Information Unlimited utilizes an almost textbook approach to a Cockroft-Walton voltage multiplier: a two-transistor multi-vibrator provides 250-watts of power to a heavy-duty flyback transformer, which converts the electricity from an initial voltage of 115 VAC to 3,000 VAC out of the flyback. It also increases the frequency of the charge, from the normal 60 Hz of the power-line on the input side to 13,000+ hertz on the output side of the flyback. This is because flyback transformers are designed to operate more efficiently at higher frequencies - the overall result is a 3,000 volt, 13 kilohertz waveform that comes out of the flyback and is pumped directly into the Cockroft-Walton voltage multiplier.

As I mentioned before, the Cockroft-Walton voltage multiplier is a very basic array of diodes and capacitors, connected to the output of the flyback. During the positive (+) cycle of the flyback's output, the CW multiplier charges the internal capacitor-bank in parallel - perhaps 16 capacitors charging at 3,000 volts each. On the output side of the duty cycle, the CW multiplier then discharges the entire array of capacitors in series - which steps up the voltage from 3,000 volts to 48,000 volts. The only drawback to this process is that the output current of the CW multiplier is reduced by a multiple at least equal to the increase in voltage - hence, voltage is multiplied sixteen-fold, but the output current is 16-times weaker.
As you can see, Cockroft-Walton based high-voltage power-supplies have some very definite limitations. In addition to low output current, these devices are a bit on the heavy side for Antigravity research - my 'lightweight' GRA-50 supply contains at least 5 pounds of parts and shielding. Finally, the kiss of death for the CW-based power-supplies is the fact that they require a "wall-socket umbilical cord" at all times - in other words, unless you have a really lightweight 115 VAC battery your CW multiplier won't be very useful unless you have a really long extension cord. While experiments such as Saviour in Belgium have been experimenting with building stripped down "ultra lightweight" versions of the CW multiplier for use in Lifters, the entire concept has some glaring limitations - perhaps limitations that Betavoltaic technology can readily overcome.

Unlike a CW multiplier, Betavoltaic cells produce a high-voltage stream of electrons as a natural by- product of the stimulated decay process. Betavoltaic cells are also readily adaptable to producing a variable amount of current, and have the possibility of readily exceeding the limitations of the CW multiplier in terms of power. By

simply varying the amount of energy that's put into the feedback loop through the stimulation-circuitry, it may be possible to produce all the high-voltage direct-current that you would ever need for an onboard Lifter power-supply.

Michael McDonnough isn't waiting around for Biefeld-Brown technology to mature before beginning his aerospace efforts - in fact, he already has a tentative plan for a high-output plasma drive based on the PlasmaVolt technology. "You know", he said, "We can scale these things up to a Gigawatt without any real difficulties." A gigawatt of power is substantially greater than the largest plasma-drives that NASA has experimented with, which are bulky and generate only kilowatts of energy.

McDonnough's vision of the PlasmaVolt as a tool for space exploration involves connecting the device to an acceleration chamber to create a stream of Plasma out the back end of the device. Therefore, whether or not the Lifter is the tool that the PlasmaVolt ends up powering, it seems doubtless that this device will make its way into space in one way or another.

Conclusion

Certain nuclear isotopes emit electrons when they break down - these are called "beta-emitting" isotopes. The electrons that are released during this natural decay process can be collected to provide a useable stream of electrical energy. According to the research of Dr. Ruggero Santilli, the rate of the decay process can be increased to provide electrical energy on-demand. The experimental work of Ted Gagnon has further shown that by providing an 'envelope' of harmonic electrical impulses into a liquid medium, this process of stimulated decay can be further increased to provide useable power from isotopes that would otherwise have a very low rate of decay.

Building a nuclear battery isn't hard to do - Bob Lazar's comments indicate that generating electricity in this manner can be as simple as putting a rock inside a glass jar, but doing this safely is another thing entirely, and that has prevented the commercial marketing of nuclear batteries for commercial applications up until now.

Over the course of the last year, the Betavoltaic Corporation has moved from a theoretical approach to a successful prototype for a unique power-generation process. They don't have the only technology to deliver electricity from nuclear isotopes, but they do have what appears to be the safest process.

Electron-emitting beta-isotopes are capable of storing incredible amounts of energy in a tiny package - this makes them suitable for a variety of applications that require the delivery of electrical power over a long-term period of time without interruption or recharging. In addition to applications such as microelectronics that require conventional power, the high voltages inherent in beta-decay make them suitable for Biefeld-Brown technologies, or at least allow the possibility of high-voltage energy production with lighter-weight apparatus than the Cockroft-Walton voltage-multipliers currently popular among experimenters.

Time will tell as to the commercial viability of this product. With a non-stimulated half-life of 1.7 billion years, it would appear that that the K40 solution under development by Betavoltaic is the 'perfect' process for liberating energy in a controlled manner from the breakdown of this material.
Whether the PlasmaVolt devices that generate the K40 isotope can penetrate the market enough to successfully launch the large-scale generation of this isotope remains to be seen, but the Betavoltaic Corporation is doing excellent work both in the short- and long-term planning for commercialization of this technology. They've succeeded admirably in the first step towards commercialization, which is demonstrating that the PlasmaVolt can generate power and create the K40 isotope -- the next step requires demonstrating that the K40 can actually power a Betavoltaic cell.

Once Betavoltaic makes it work, they'll be holding the key to an entirely new energy technology that has the potential to revolutionize our world through an inexpensive and efficient method of creating and storing electrical energy.

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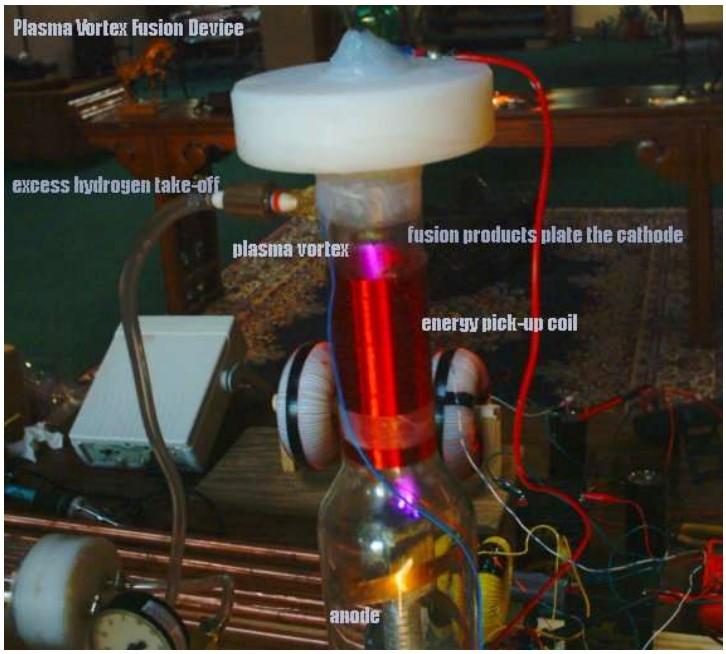

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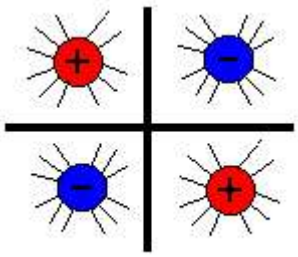
Bedini New Patent

I have been working in the energy field for over 30 years, I have come to the conclusion that their is no "Free Electricity". Their is only a potential radiant charge that makes up a dipole.

This energy makes up everything we touch and use in our electrical circuits as we know them. The electrical circuits as we know them are flawed, meaning they burn up the dipole that is free in nature.



If you kill the dipole you loose the energy. The dipole killer is the electron current in the circuit. So therefore the term free electricity only applies to those that have done away with the current or have figured a way to block it from completing it's path through the circuit. Their are no meters to measure this radiant current, and when you catch it, it has the power of the universe and beyond. Good luck in your research . Their is only energy from the vacuum, known as radiant energy. to find out more about this you need to read Tom Bearden's book. To go to my pages go to the bottom of the page .

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2002/0097013 A1**

Bedini (43) **Pub. Date: Jul. 25, 2002**

(54) **PERMANENT ELECTROMAGNETIC MOTOR GENERATOR**

(75) Inventor: **John C. Bedini**, Coeur d'Alene, ID (US)

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(73) Assignee: **Bedini Technology, Inc.**

(21) Appl. No.: **10/107,925**

(22) Filed: **Mar. 26, 2002**

Related U.S. Application Data

(63) Continuation of application No. 09/483,715, filed on Jan. 13, 2000, now Pat. No. 6,392,370.

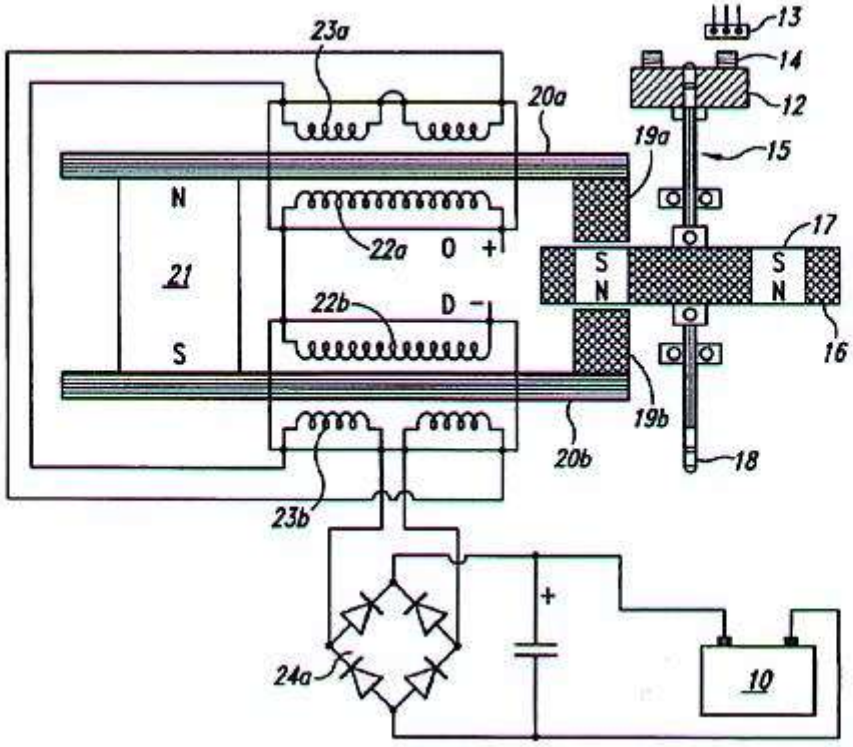
Publication Classification

(51) **Int. Cl.**[7] **H02P 1/00**

(52) **U.S. Cl.** **318/139**

(57) **ABSTRACT**

This invention is a back EMF permanent electromagnetic motor generator and method using a regauging process for capturing available electromagnetic energy in the system. The device is comprised of a rotor with magnets of the same polarity; a timing wheel in apposition to a magnetic Hall Effect pickup switch semiconductor; and a stator comprised of two bars connected by a permanent magnet with magnetized pole pieces at one end of each bar. There are input and output coils created by wrapping each bar with a conducting material such as copper wire. Energy from the output coils is transferred to a recovery rectifier or diode. The magnets of the rotor, which is located on a shaft along with the timing wheel, are in apposition to the magnetized pole pieces of the two bars. The invention works through a process of regauging, that is, the flux fields created by the coils is collapsed because of a reversal of the magnetic field in the magnetized pole pieces thus allowing the capture of available back EMF energy. Additional available energy may be captured and used to re-energize the battery, and/or sent in another direction to be used as work. As an alternative, the available back EMF energy may be dissipated into the system.



(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
19 September 2002 (19.09.2002)

PCT

(10) International Publication Number
WO 02/073779 A1

(51) International Patent Classification[7]: H02K 21/14, 29/10, B60L 11/18, H02J 7/02

(21) International Application Number: PCT/US02/07357

(22) International Filing Date: 8 March 2002 (08.03.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/805,762 13 March 2001 (13.03.2001) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 09/805,762 (CON)
Filed on 13 March 2001 (13.03.2001)

(71) Applicant *(for all designated States except US)*: **ENERGENX INC.** [US/US]; 4401 Seltice Way, Coeur d'Alene, ID 83814 (US).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **BEDINI, John, C.** [US/US]; 1907 Canyon, Coeur d'Alene, ID 83814 (US).

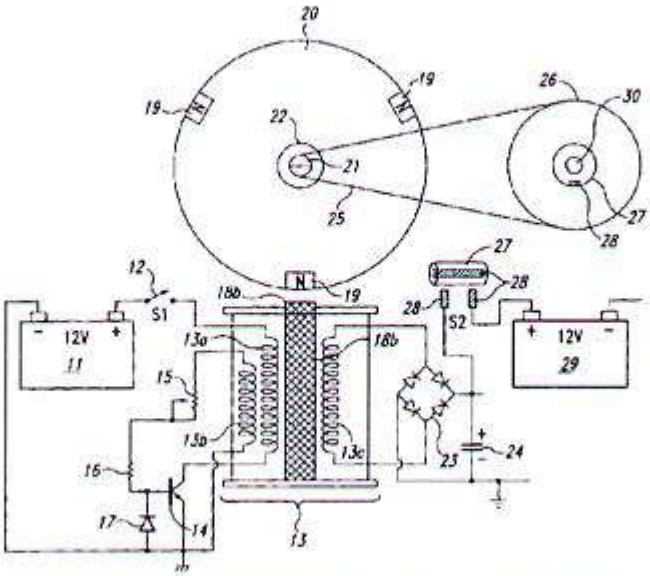
(74) Agents: **SANTARELLI, Bryan, A.** et al.; Graybeal Jackson Haley LLP, Suite 350, 155 108th Avenue Northeast, Bellevue, WA 98004-5901 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: A DEVICE AND METHOD FOR UTILIZING A MONOPOLE MOTOR TO CREATE BACK EMF TO CHARGE BATTERIES



(57) Abstract: A back EMF monopole motor and method using a rotor containing magnets all of the same polarity and in a monopole condition when in momentary apposition with a magnetized pole piece of a stator having the same polarity, said stator comprised of a coil with three winding: a power-coil winding, a trigger-coil winding, and a recovery-coil winding. The back EMF energy is rectified using a high voltage bridge, which transfers the back EMF energy to a high voltage capacitor for storage in a recovery battery. The stored energy can then be discharged across the recovery battery through the means of a contact rotor switch for further storage.

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0117111 A1**

Bedini (43) **Pub. Date: Jun. 26, 2003**

(54) **DEVICE AND METHOD FOR PULSE CHARGING A BATTERY AND FOR DRIVING OTHER DEVICES WITH A PULSE**

(75) Inventor: **John C. Bedini**, Coeur d'Alene, ID (US)

Correspondence Address:
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(73) Assignee: **Energenx, Inc.**

(21) Appl. No.: **10/032,125**

(22) Filed: **Dec. 21, 2001**

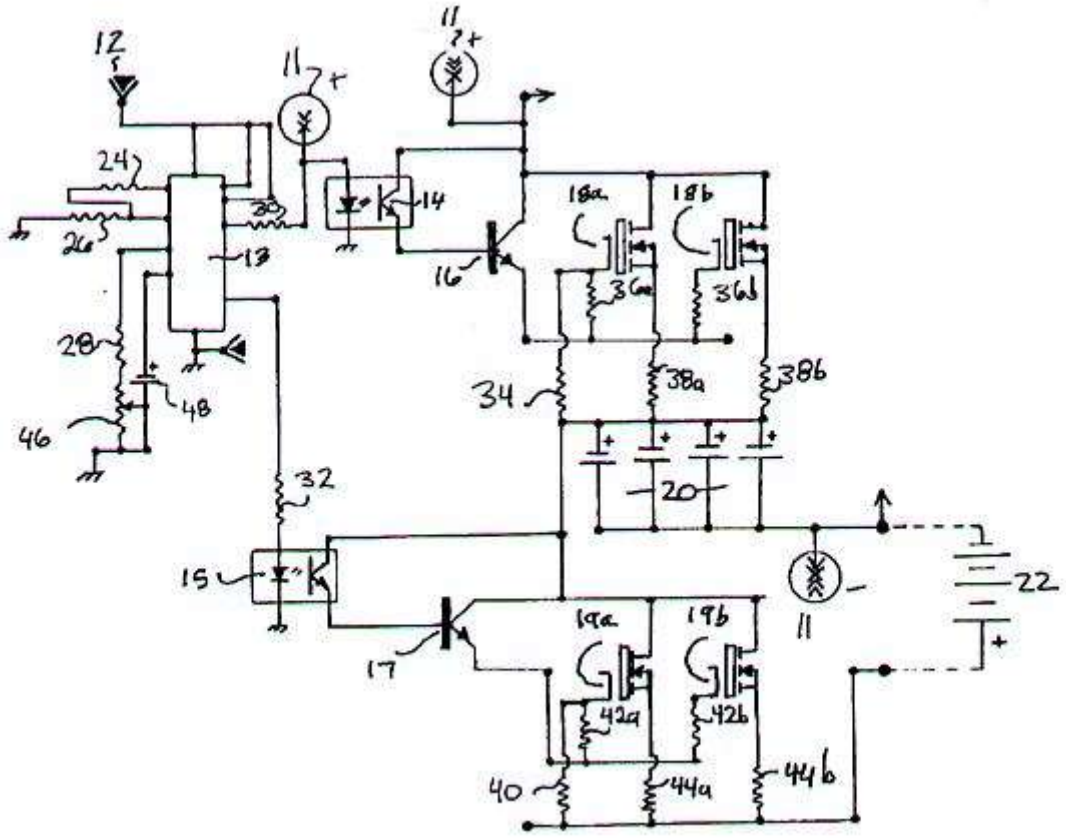
Publication Classification

(51) **Int. Cl.**[7] **H02J 7/00**

(52) **U.S. Cl.** **320/135**

(57) **ABSTRACT**

A two-phase solid-state battery charger can receive input energy from a variety of sources including AC current, a battery, a DC generator, a DC-to-DC inverter, solar cells or any other compatible source of input energy. Phase I is the charge phase and phase II the discharge phase wherein a signal or current passes through a dual timing switch that controls independently two channels dividing the two phases. The dual timing switch is controlled by a logic chip or pulse width modulator. A potential charge is allowed to build up in a capacitor bank, the capacitor bank is then disconnected from the energy input source and then pulse charged at high voltage into the battery to receive the charge. The momentary disconnection of the capacitor from the input energy source allows for a free-floating potential charge in the capacitor. Once the capacitor has completed discharging the potential charge into the battery, the capacitor disconnects from the battery and re-connects to the energy source thus completing the two-phase cycle.



United States Patent [19]

Gray

[11] **3,890,548**

[45] **June 17, 1975**

[54] **PULSED CAPACITOR DISCHARGE ELECTRIC ENGINE**

[75] Inventor: **Edwin V. Gray**, Northridge, Calif.

[73] Assignee: **Evgray Enterprises, Inc.**, Van Nuys, Calif.

[22] Filed: **Nov. 2, 1973**

[21] Appl. No.: **412,415**

[52] **U.S. Cl.** **318/139**; 318/254; 318/439; 310/46

[51] **Int. Cl.** **H02p 5/00**

[58] **Field of Search** 310/46, 5, 6; 318/194, 318/439, 254, 139; 320/1; 307/110

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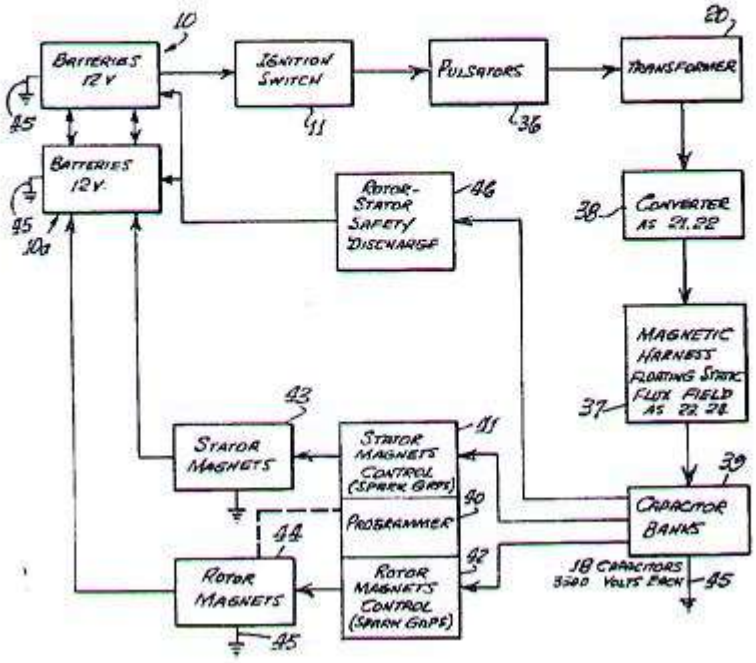
Primary Examiner—Robert K. Schaefer
Assistant Examiner—John J. Feldhaus
Attorney, Agent, or Firm—Gerald L. Price

[57] **ABSTRACT**

There is disclosed herein an electric machine or engine in which a rotor cage having an array of electromagnets is rotatable in an array of electromagnets, or fixed electromagnets are juxtaposed against movable ones. The coils of the electromagnets are connected in the discharge path of capacitors charged to relatively high voltage and discharged through the electromagnetic coils when selected rotor and stator elements are in alignment, or when the fixed electromagnets and movable electromagnets are juxtaposed. The discharge occurs across spark gaps disclosed in alignment with respect to the desired juxtaposition of the selected movable and stationary electromagnets. The capacitor discharges occur simultaneously through juxtaposed stationary movable electromagnets wound so that their respective cores are in magnetic repulsion polarity, thus resulting in the forced motion of movable electromagnetic elements away from the juxtaposed stationary electromagnetic elements at the discharge, thereby achieving motion. In an engine, the discharges occur successively across selected ones of the gaps to maintain continuous rotation. Capacitors are recharged between successive alignment positions of particular rotor and stator electromagnets of the engine.

18 Claims, 19 Drawing Figures



(12) **United States Patent**
Patrick et al.

(10) **Patent No.: US 6,362,718 B1**
(45) **Date of Patent: Mar. 26, 2002**

(54) **MOTIONLESS ELECTROMAGNETIC GENERATOR**

(76) Inventors: **Stephen L. Patrick**, 2511 Woodview Dr. SE.; **Thomas E. Bearden**, 2211 Cove Rd., both of Huntsville, AL (US) 35801; **James C. Hayes**, 16026 Deaton Dr. SE., Huntsville, AL (US) 35803; **Kenneth D. Moore**, 1704 Montdale Rd., Huntsville, FL (US) 35801; **James L. Kenny**, 925 Tascosa Dr., Huntsville, AL (US) 35802

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/656,313**

(22) Filed: **Sep. 6, 2000**

(51) **Int. Cl.**[7] **H01F 27/24**
(52) **U.S. Cl.** **336/214**
(58) **Field of Search** 363/16, 24, 25, 363/26, 56.06, 56.08, 133, 134; 336/15, 110, 155, 177, 180, 213, 214, 221, 222

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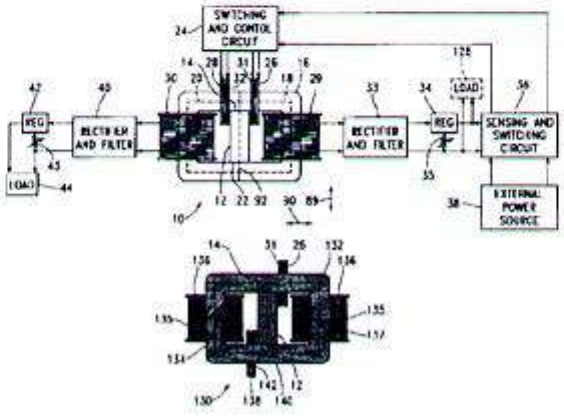
Primary Examiner—Matthew Nguyen
(74) *Attorney, Agent, or Firm*—Norman Friedland

(57) **ABSTRACT**

An electromagnetic generator without moving parts includes a permanent magnet and a magnetic core including first and second magnetic paths. A first input coil and a first output coil extend around portions of the first magnetic path, while a second input coil and a second output coil extend around portions of the second magnetic path. The input coils are alternatively pulsed to provide induced current pulses in the output coils. Driving electrical current through each of the input coils reduces a level of flux from the permanent magnet within the magnet path around which the input coil extends. In an alternative embodiment of an electromagnetic generator, the magnetic core includes annular spaced-apart plates, with posts and permanent magnets extending in an alternating fashion between the plates. An output coil extends around each of these posts. Input coils extending around portions of the plates are pulsed to cause the induction of current within the output coils.

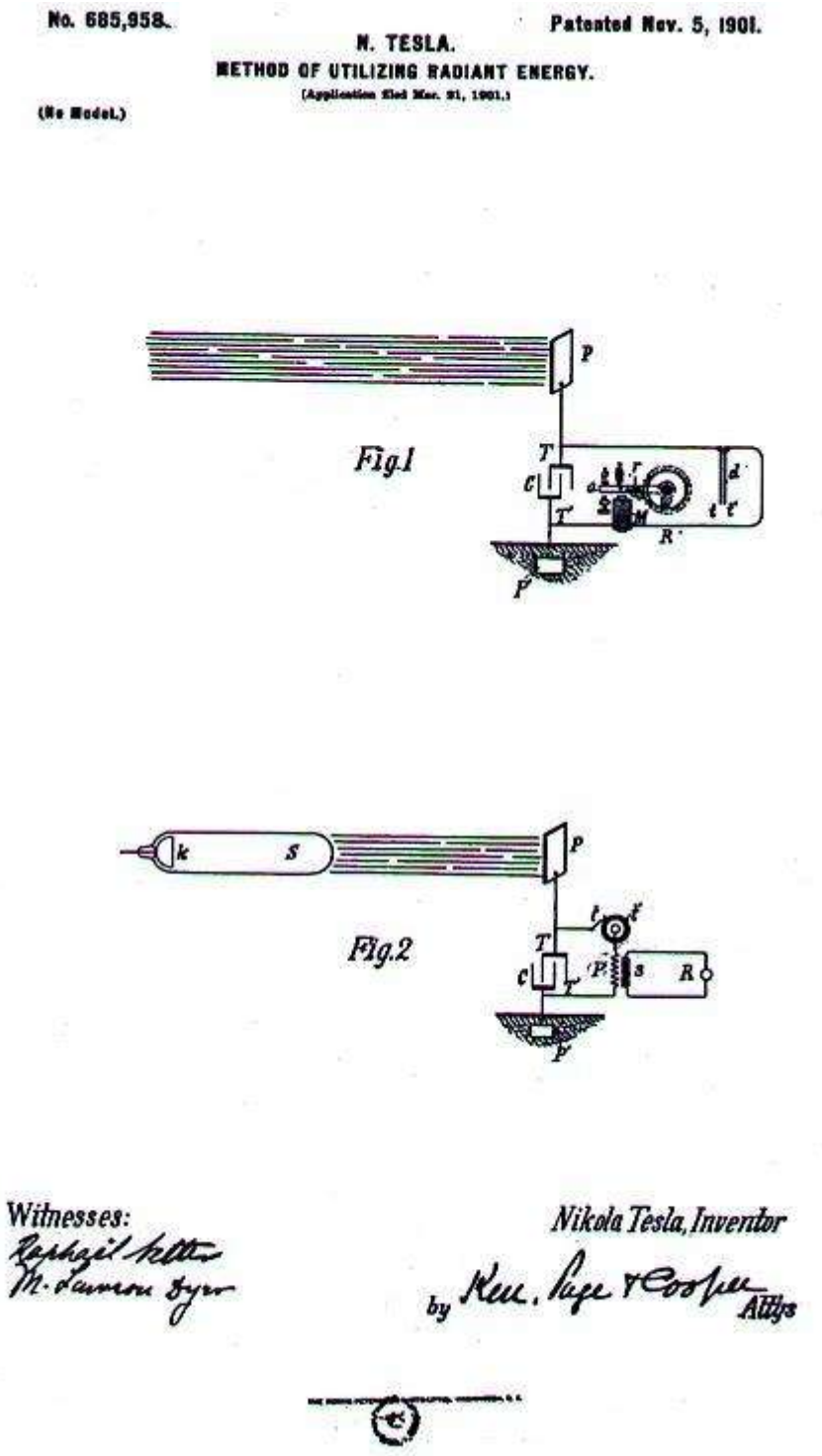
29 Claims, 5 Drawing Sheets



These patents are the only key to unlocking this radiant energy.

Perhaps it is better in this present world of ours that a revolutionary idea or invention instead of being helped and patted be hampered and ill-treated in its adolescence- by want of means, by selfish interest, pedantery, stupidity and ignorance; that it be attacked and stifled ; that it pass through bitter trials and tribulations, through the heartless strife of commercial existence. So all that was great in the past was ridiculed, condemned, combatted, suppressed - only to emerge all the more powerfully, all the more triumphantly from the struggle.

N. Tesla



No. 685,958. Patented Nov. 5, 1901.

N. TESLA.

METHOD OF UTILIZING RADIANT ENERGY.

(Application filed Mar. 21, 1901.)

(No Model.)

Fig.1

Fig.2

Witnesses:

Nikola Tesla, Inventor

by Kerr, Page & Cooper Attys

"Today's scientist have substituted mathematics for experiments and they wander off through equation after equation and eventually build a structure which has no relation to reality."

Nikola Tesla

Here in the Tesla patent once again we see the use of radiant energy. As I

have said above their is only a radiant current, and this current is passed through the system by the capacitor and only a capacitor. The next step in the system is the amount of time it takes to charge this capacitor, and then the amount of time it takes to discharge the capacitor for they all have their own time, and each one of these things must be in sync in their own time.

It is so funny to sit here now and think that Benjamin Franklin had it all at his finger tips, if he would have used the capacitor the correct way.

It's the most simple thing in nature to do, and the hardest for mankind to understand because of the mind blocks. Their is no math for radiant current, for are instruments do not measure it. It's even sick to see meters all over these machines, because their is no possible way to measure the Aether flow. The people have had it all along and yet a little "meter" has stood in their way from the truth. Meters only measure wasted energy in the system.

Yes here it is, THE REAL McCoy

(all patents are core technology, now using inverted radiant circuits)

BTI systems inc.

Radiant currents are just like Tesla said a gas in nature
the transformation converter is the
Capacitor.

An answer to David Thomson

David this is great stuff and I admire your work, but the dipole we are talking about are two different things. first of all the math does not apply since their are no equations for it. The math of today's scientist only runs you around in equation after equation, "just like Tesla said". All are electrical equations are only designed to burn energy in current. I understand the The Casimir effect, but this does not have anything to do with the charge of a magnetic moment. this does not take any high voltage since the stress field is always there. Our circuits are designed to split the magnetic moment before it becomes magnetic, this is where the radiant comes from. If we go back to Tesla and what he was doing in the end we find out he was studying through small experiments how this Radiant gas behaved, and what shapes it worked best with. His work with different lattice was very detailed and this is where The Casimir effect comes into play. As for the Radiant work their only three patents by Tesla which discusses anything, and no math. The only thing we have to use at this time is VQ without the I (current) but it should be Vr =Q (voltage from the split Radiant = Charge) The only other factor is TIME to get the Vr. If a long time is required to collect charge in this split then C (capacitor) should be very small so that the highest V (voltage) is obtained. If the Vr is very quick in splitting this magnetic moment then C can be very big. Also frequency of this magnetic moment is very important. You must release the Radiant voltage into a radiant current de-void of any electrons. So what is charging the batteries in My system is pure Radiant Current. This means that since their is no electrons to pile up on the Ions of the battery nothing can move, this forces the Ions to change their state and they move on their own, this is nothing more then a impedance shift, if you have a low impedance in the battery you have real power, if you have high impedance in the battery you have nothing. Nature takes time to move at her own rate, so the battery may take a long time to charge but charge it

will with a different form of energy. This brings me to a different point, That all that is driving the switching solid state wise is a difference in potential across the battery inverted. This then means that the whole flow theory is out the window, meaning that the semiconductors are working on potential charge de-void of electrons so their is no heat generated in the semiconductor. As for the battery it fill's in it's own electrons. I must say that Tesla was right.

John

Answer Two

David and Darren

First of all with all due respect and admiration for your work, I must still state that My work has nothing to do with "Strong Charge", or Resonance in our circuits. My work is based on real working models, and these real working models are saying something much different than what the equations are saying. My magnetic moment is based on what is occurring in the front end circuit before the normal current builds up, and then to capture the radiant voltage and then split this voltage into a current de-void of electrons to charge the batteries. So here we differ again I'm not looking for electrons to power anything, in your model you can not get away from the electrons. My models are telling me that the equations must be revised to work properly with My model. I not only have one model that is working I have 30 that do the same thing plus the solid state models. Radiant energy goes away when electrons enter the picture. Read very carefully what Tesla said about the power stations when they were DC powered, I think you will catch it. I have never seen anybody that did science right do the equations before they had a working model on the bench. Also it's not "Professional" to speak of another fellow scientists working in the field as regurgitated Bearden concepts, when nobody has check the references to find out if he is right. I have worked with Tom Bearden for 30 +years and those theories come from my bench models that are working. Now others are getting to first base and soon they will be on third base, soon you will see these machines powering loads and charging their own batteries, then where will all the math models sit? If my patents were understood it would be found out that the Mono Pole motor is not a Motor, it is a mechanical Radiant oscillator with a one to one transformer inductively triggered. being a one to one transformer you can not get more out then you put in, unless something else is flowing through it, it does not fit the math models, so this washes the forward converter theory down the drain. I say this, if I take your model and understand it correctly, everybody should have their lights burning right now! What bench model do you have running on this theory? I say these things to you with all do respect for your hard work.

John Bedini

For more discussions www.icehouse.net/john1/index100.htm

These pages are for serious researchers only, doing serious work. I do not have time to answer questions on where you buy magnets or how you wind coils. You must be an engineering type of person and have machine experience. In the future I will be putting up pages on other systems according to Tom Bearden's new book.

Energy From The Vacuum

Concepts &Principles

You may order this book from the Tom Bearden Website at

www.cheniere.org/

I will be adding experiments, with the concepts of Nathan Stubblefield's work on ground wave transmission. I have completed my test and have had very good results with over 10 miles distance, even through the water pipes, rivers, streams in the local area. The circuits involved in these transmissions involve vacuum tubes and high voltage. The researcher is warned that if you have no experience in ground wave radio transmission and FCC rules and regulations, stay away from these experiments. I take no responsibility for " your " actions, and you experiment at your own risk. If you cause interference to anything, you must stop your experiments, because the fine will be something you will never forget. By doing these experiments, you assume all responsibility. You will be shocked to see that you need no RF (Radio Frequency) whatsoever. In the days of Nathan Stubblefield, they did not even understand the vacuum tube, so Nathan built many induction transformers to do this communication. If the experiments are understood , one may find that a whole new experimental field is now open. By phasing the transmission. it is possible to generate 3D special systems in sound and voice.

Quote from Stubblefield: " I have solved the problem of telephoning without wires through the earth as Signor Marconi has of sending signals through space."

Stubblefield in his workshop To get insight into Stubblefield go to

http://www.nathanstubblefield.com/

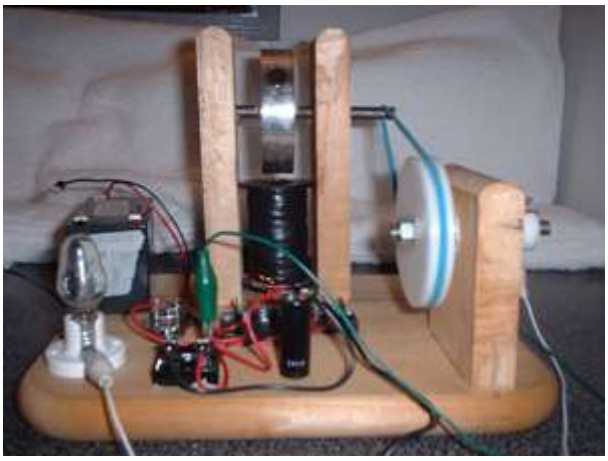
and order the book

For the pages on Nathan Stubblefield go to

www.icehouse.net/john1/stubblefield.html

www.icehouse.net/john1/index11.html

Bedini Dual Battery Recovery Motor Validated!



120 v., 7w bulb flashed with 12v 1.2aH battery. Motor drawing only 120 mA in pulses!

View a video of the motor in action here

Windows Media Player Format

The lighbulb in the above test device was just to demonstrate the energy pulses. The pulse was switched to a secondary battery for energy recovery on the operational unit. Although my initial test unit is made from wood instead of plastic, the principal was exactly the same as John's unit. The real key to this device is to understand what is happening in the circuit, and to use the proper timing.

The actual circuit operates almost exactly in principal as did Tesla's Radiant Energy patent. The trick is in the proper timing! Just like John always said.

My initial testing began on the above device, and then moved to principals employed in his newest patent applications. The above recovery circuit was but only a lesson in Radiant Energy recovery. The validated device is NOT flashing a lightbulb like some have ASSumed. It is charging batteries with NO electron current, and only requires a small amount of energy to operate the circuit that triggers the Radiant Energy for capture. You will not measure it on your meters, but it will manifest as a fully charged battery.

Definition: **Bedini Dual Battery Recovery Circuit**- A device that captures otherwise wasted or unusable energy, and transforms it into a form that can be used to charge batteries. This energy stored in the battery can then be used to power loads, and in any way that a standard battery can be used.

URGENT UPDATE!

I am not going to get into debates with the disinformation artists regarding this validation! It is REAL and it is now validated. Everything that John has said in the past has been independently verified. It is unfortunate that the individuals that did not have immediate success or failed because they did not follow directions, or did not grasp the process. They attempted to discredit John, and apply the standard electronics theory to his circuits. I will state it now, I have been testing this device for more than 1 year, under the guidance of John Bedini. Forget standard electronic theory for this device. Your calculations will be wrong everytime. The theories necessary to fit this device are buried in the old Tesla texts, and the Bearden writings.

Many of you who are reading this will not have the patience to finish my words. You have been "trained" that if you see or hear something that you don't want to hear, then you move on to something else, and ignore everything that is said. Well, I will tell you this.. I have been looking into the validity of the Bedini circuits non-stop for over 3 years! I was sitting in my lab with a working model of the simple schoolgirl motor when many

"engineers" were saying that the simple pulse motor design would not even work to turn the wheel. This was enough to prove to me, that classical training is flawed, and limited. You see, the very instructors in college that "teach" you these processes, are only REPEATING what they were taught maybe 20 years prior. Thank God that Tesla did not agree with his instructors on the idea of a Brushless Motor. Otherwise, he may have not been open-minded enough to think OUTSIDE of the box. Then where would we all be now???

Many people have claimed over the years that John was hiding something, or asked such stupid questions such as, "Where do I buy magnets?", etc. This system will work with different types of components, but adjustments must be made for component changes. Therefore, YOU must understand completely how this process works to be able to replicate it. And it is a patented process in this system, so I cannot divulge the exact processes involved. John has put the information into the public domain for many years, but the scammers, disinformation artists, and all those who did not understand it; refused to believe that it was true. I suggest that if you wish to learn more, begin a dialogue on Keelynet or some message board where John can reply. That is, if you really want to know how the process works. But if you ask me, I will say that many of the people on this planet are not ready for a technology that actually utilizes this type of energy, because the profiteers are trying to run the show. It was buried in the past, and now we have a chance to grasp it once again, before it is too late. Let's face it. We are destroying our planet, and everyone is looking for clean, safe, NON-RADIOACTIVE means of power! It has been here all along. But those who were foolish enough to ignore it, will be the losers.

This system works without destroying the dipole. The batteries will charge, and will not use any appreciable energy to do so. The system works exactly as described by Tesla, Moray, Hendershot, Bearden, and Bedini. The principals utilized are valid. It takes "radiant energy" that is very plentiful throughout the universe and transforms it into a useful energy source.

NOTICE!

I have received the great honor to be able to work with John on these circuits. I have validated these processes and understand finally how they work. Since John and I are working together on newer circuits which are MUCH more advanced than this "proof of principal" device, I have committed to a non-disclosure agreement with John. I respect the agreement, and I REFUSE TO ANSWER ANY INQUIRIES REGARDING THESE PROCESSES. Any information regarding how these units work, will be given to others by John himself, if he so chooses.

So, please DO NOT email me regarding the Bedini devices, all such messages will be deleted. I suggest that you begin a productive Q&A thread on a message board where he can respond directly. The answers were there all along.

I will however let you redigest what John recently posted to his website:

---There is no "Free Electricity". There is only a potential radiant charge that makes up a dipole. This energy makes up everything we touch and use, and are in electrical circuits as we know them. The electrical circuits as we know them are flawed, meaning they burn up the dipole that is free in nature. If you kill the dipole you loose the energy. The dipole killer is the current in the circuit.---

In a nutshell, this means that conventional electrical circuits destroy the excess energy that is provided everywhere.

Click to read a message from Dr. Peter Lindemann

Below are some photos of John Bedini's small unit in operation.

Harlan extends many thanks to John for submitting actual photos of his device for post below.

Click the thumbnail to see full sized photo

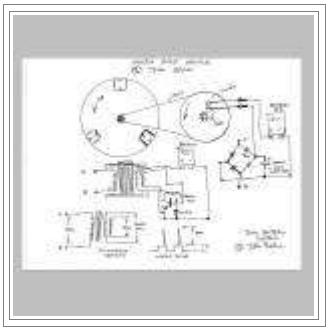
Videos of original Bedini Dual Battery Recovery Motor

Right-Click and Save as:

MVC-502V

MVC-503V

Below is the original drawing for the motor in my test. The only changes are the use of 12v batteries instead of 9v.

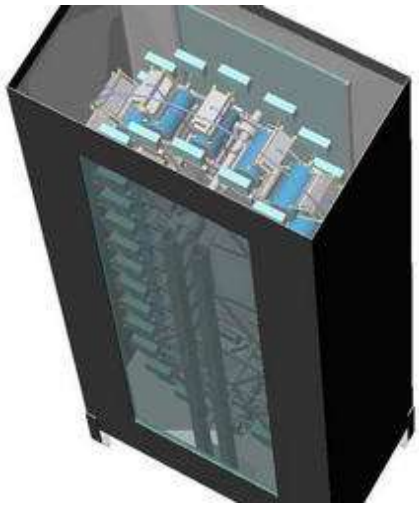


Bedini's New patent application now online at the USPTO. Click the link below.

Device and method for pulse charging a battery and driving devices with a pulse.

Fonte: http://monsite.wanadoo.fr/perpetuum/

- Perpetuum Mobile -
- MOTEUR A MOUVEMENT PERPÉTUEL -
- Perpetual Motor -
- Вечный Двигатель -
- Free Energy -
(Les moteurs a mouvement perpétuel)



Ecrivez-nous :
micha_sm@hotmail.com

perpetuum
03/01/04

Moteur 01 10913

DISPOSITIF DE PRODUCTION D'ÉNERGIE MÉCANIQUE IMMERGE VERTICALEMENT, UTILISANT DES ÉLÉMENTS A VOLUME VARIABLE ET LA FORCE D'ARCHIMÈDE POUR SON FONCTIONNEMENT

La présente invention concerne un dispositif de production d'énergie mécanique, immergé verticalement, utilisant des éléments à volume variable et la force d'Archimède pour son fonctionnement.
Les éléments à volume variable changeront leurs volumes en fonction des positions des aimants se trouvant à l'intérieur. Le schéma général du principe est représenté sur le dessin Fig.1.

Selon des modes particuliers de réalisation :
- à titre d'exemple non limitatif, et selon des variantes non illustrées, le dispositif selon l'invention peut comporter des roues, pouvant porter deux ou plusieurs chaînes, lesquelles seront mieux adaptées à ce système. La fixation des éléments à volume variable, à deux ou plusieurs chaînes, permettra d'équilibrer leurs centres de gravité par rapport aux points de fixation.

- à titre d'exemple non limitatif, et selon des variantes non illustrées, le dispositif selon l'invention peut comporter des tuyaux souples, dans les cas où l'on veut supprimer les effets de la pression de l'air, se trouvant à l'intérieur des éléments durant le changement des volumes. On peut les relier tous en série entre eux par des tuyaux souples de diamètre suffisant, pour assurer l'écoulement de l'air des éléments entre eux.

Les dessins annexés illustrent l'invention :
La figure 1 représente le dispositif de l'invention immergé verticalement, son schéma général du principe, utilisant les éléments à volume variable, (dont la variation du volume est réalisée moyennant les aimants), et la force d'Archimède, pour son fonctionnement.
La figure 2 représente en coupe le schéma, des éléments à volume variable moyennant les aimants, durant l'évolution de côté gauche (G) du dispositif (volume maximal).
La figure 3 représente en coupe le schéma, le même élément, durant l'évolution de côté droit (D) (volume minimal) du dispositif et tourne à 180° par rapport aux éléments, évoluant de côté gauche (G).
A titre d'exemple, la figure 4 représente en coupe le schéma de la même variante des éléments à volume variable en position horizontale, en état d'évolution de côté droit (D) du dispositif.

Le dispositif, selon l'invention, permet la production de l'énergie mécanique grâce à un changement de volume des éléments à volume variable (5) et (6), immergés et fixés aux maillons d'une chaîne (8) Fig. 1 par leurs pattes de fixation (11) Fig. 2, provocant la différence des forces d'Archimède (F) et (f) de côté gauche (G) et droit (D) Fig. 1 du dispositif, entraînant la chaîne dans le sens indiqué sur le schéma par les flèches et la rotation des roues sur leurs axes (3) et (4) Fig. 1.
Selon des modes de réalisation différents, on peut fixer les éléments en position horizontale Fig.4, ils seront plus équilibrés et efficaces, et ils doivent être tous identiques.
Les éléments à volume variable changeront leur volume selon qu'ils évolueront de côté gauche (G) ou droit (D) Fig. 1 du dispositif, en fonction de la position des aimants, se trouvant à l'intérieur. Les aimants du rotor à l'intérieur de chaque élément à volume variable seront maintenus toujours dans la même orientation moyennant des flotteurs (7) Fig. 1 ou (1) Fig. 2, fixes au bout de leurs bras de levier (5) Fig. 2, solidaires de l'axe (12) Fig. 2 des rotors, portant les aimants intérieurs.

Pendant l'évolution des éléments à volume variable de côté gauche (G) Fig. 1 du dispositif, les aimants (2) et (14) sont en face des aimants (9) du rotor Fig. 2 de même polarité.
Les aimants de mêmes pôles ont la propriété naturelle de se repousser les uns les autres et provoqueront ainsi le déplacement des parties mobiles (3) ver l'extérieur, guidés par les tiges (6) Fig. 2, agrandissant le volume de l'élément entier. Le déplacement des parties mobiles (2), (3), (14) et (15) Fig. 2 vers l'extérieur est assisté par la pression de l'air, se trouvant à l'intérieur des éléments. Le déplacement des aimants (2) et (14) Fig.2 est limité par des butées réglables (4) et (7) Fig. 2. Les aimants (2) et (14) sont relies par les tiges (15) Fig. 3

Pendant que des éléments à volume variable évolueront dans la partie droite (D) Fig. 1 du dispositif, les aimants (2) et (14) à Fig. 3 sont en face des aimants (9) de pôles opposés, et étant donné que les aimants de pôle opposé ont la propriété naturelle de s'attirer, cela provoquera le déplacement des parties mobile (2) et (3), guidées par les tiges (6) Fig. 3 vers l'intérieur, diminuant le volume de l'élément entier et en comprimant l'air se trouvant à l'intérieur.
Les butées (4) et (7) Fig. 2 servant aussi à éviter le frottement et le contact des aimants.
Les éléments à volume variable évoluant dans la partie gauche (G) sont tournés à 180° par rapport aux éléments se trouvant dans la partie droite (D) du dispositif Fig. 1, 2 et 3, les orientations des aimants du rotor resteront inchangées, maintenues par les flotteurs toujours dans la même direction (orientation).
Pour s'opposer à la pression de l'eau (P) en fonction de la profondeur, les éléments à volume variable sont remplis d'air sous une certaine pression (p) Fig. 3, étant parfaitement étanches, pour conserver l'air se trouvant à l'intérieur.
L'étanchéité est assurée par les soufflets (8) et des joints (13) sur l'axe (12) Fig. 2. Le carter (3) et (10) Fig. 2 ou Fig. 3 doit être en matière diamagnétique. L'espace libre contenant l'air à l'intérieur des éléments, le volume des flotteurs, la longueur de leurs bras de leviers et les autres paramètres, il faut déterminer par les essais sur un prototype.
Les forces provoquées par l'attraction ou la répulsion des aimants dans leurs mouvements, représentées par des flèches (13) et (14) pour la partie supérieure du dispositif et des flèches (15) et (16) Fig. 1 pour la partie inférieure s'annuleront et n'auront aucune influence sur le dispositif. Leurs influences s'exerceront localement sur les points (A), (B), (C), (D) Fig. 1.

Si le dispositif tourne librement, la force va s'équilibrer avec le frottement des éléments pendant leur déplacement dans l'eau, provoquant la stabilisation de la vitesse. Pour produire de l'énergie, il faut que des roues tournent à très faible vitesse, et pour augmenter le rendement il faut utiliser des aimants particulièrement puissants, capables de produire d'importants changements de volumes des éléments à volume variable, donc la différence entre des forces d'Archimède (F) et (f) de chaque côté du dispositif.
Les frottements des éléments pendant leur déplacement dans l'eau sont proportionnels à la vitesse de leur déplacement. La différence entre les forces d'Archimède de chaque côté des roues (G) et (D), est proportionnelle au volume de l'eau déplacé.
Ce dispositif est destiné à la production d'énergie mécanique écologiquement propre, facilement transformable en énergie électrique.

****

Le dessins et texte intégral vous pouvez trouver sur le site www.inpi.fr au format PDF. Il faut chercher par nom d'inventeur :

Smeretchanski

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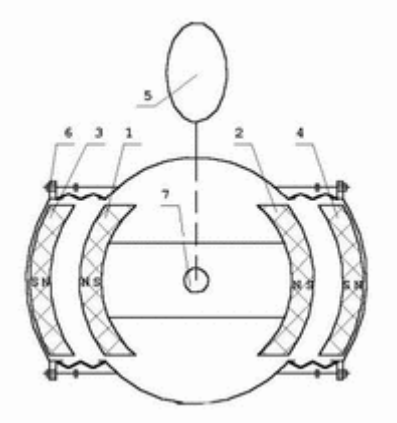
(http://ingenrw.narod.ru/Andv1/Opi2_1.html)



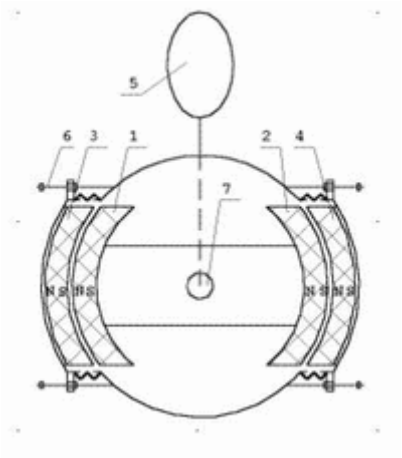
Volume max.

Text 01 10913 short version.

The present invention relates to a mechanical device of production of energy, immersed vertically, using elements with variable volume and the Archimedes force for its operation. The elements with variable volume will change their volumes according to the positions of the magnets being inside. The general outline of the principle is represented on the Fig.1 drawing.
According to particular modes of realization: - for argument's sake, and according to no illustrated alternatives, the device according to this invention can comprise wheels, being able to carry two or several chains, which will be adapted better to this system.
The fixing of the variable-volume elements, two or several chains, will allow to balance their centres of gravity according to the points of fixing.
-for argument's sake, and according to no illustrated alternatives, the device according to this invention can comprise flexible tubes, whenever we want to remove the effects of the pressure of air, being inside the elements during the change of volumes. We can connect them all in series between them by flexible tubes of sufficient diameters, to ensure the flow of air between them.
The annexed drawings illustrate this invention:
Figure 1 represents the device of the invention immersed vertically, its general outline of the principle, using the variable-volume elements, (whose variation of volume is carried out with the help of the magnets), and the Archimedes force for its operation.
Figure 2 represents a section of the diagram, of the variable-volume elements working with the help of the magnets, during the evolution on the left side (G) of the device (maximum volume).
Figure 3 represents a section of the diagram, the same element during the evolution on the right side (D) (minimal volume) of the device and turned to 180° according to the elements, moving on the left side (G).
For instance, figure 4 represents a section of the diagram of the same alternative of the variable-volume elements in horizontal position, during the evolution on the right side (D) of the device.
The device, according to the invention, allows the mechanical production of energy thanks to a change of volume of the variable-volume elements (5) and (6), immersed and fixed to the links of a chain (8) fig. 1 by their fixing clips (11) fig. 2, creating the difference of the Archimedes forces (f) and (F) on the left (G) and right (D) fig. 1 of the device, involving the chain in the direction indicated on the diagram by the arrows and the rotation of the wheels on their axes (3) and (4) fig. 1.

According to different modes of realization, we can fix the elements in horizontal position Fig.4, they will be balanced and effective, but they all must be identical. The variable-volume elements will change their volume according to their moving on the left (G) or right (D) fig. 1 of the device, according to the position of the magnets, being inside. The magnets of the inner rotor of each variable-volume element will be always maintained in the same orientation with the help of floats (7) fig. 1 or (1) fig. 2, fixed at the end of their lever arms (5) fig. 2, interdependent of the axle (12) fig. 2 of the rotors, carrying the interior magnets.
During the evolution of the variable-volumes elements on the left side (G) fig. 1 of the device, the magnets (2) and (14) are opposite the magnets (9) rotor fig. 2 of the same polarity.
The magnets of same poles have the natural property to push back each other and will thus cause the displacement of the moving parts (3) toward the outside guided by the stems (6) fig. 2, increasing the volume of the whole element.
The displacement of the moving parts (2), (3), (14) and (15) fig. 2 toward the outside is assisted by the pressure to air, being inside the elements. The displacement of the magnets (2) and (14) Fig.2 is limited by adjustable thrusts (4) and (7) fig. 2. The magnets (2) and (14) are connected to the stems (15) fig. 3.
While variable-volumes elements move on the right part (D) fig. 1 of the device, the magnets (2) and (14) with fig. 3 are opposite the magnets (9) of opposed poles, and since the magnets of opposite pole have the natural property of attract each other, that will cause the moving displacement of the parts (2) and (3), guided by the stems (6) fig. 3 toward the interior, decreasing the volume of whole element while compressing to the air inside. The thrusts (4) and (7) fig. 2 are also used to avoid the friction and the contact of the magnets. The variable-volumes elements moving on the left part (G) are turned to 180° contrary to the elements being on the right part (D) of the device fig. 1, 2 and 3, the orientations of the magnets of the rotor will always remain unchanged, maintained by the floats in the same direction (orientation).

To oppose the pressure of water (P) according to the depth, the variable-volumes elements are filled with air under a certain pressure (p) fig. 3, being perfectly tight, to preserve to the air inside. The water tightness is ensured by the bellows (8) and of the joints (13) on the axle (12) fig. 2. The casing (3) and (10) fig. 2 or fig. 3 must be out of diamagnetic matter.
The free space containing air inside the elements, the volume of the floats, the length of the lever arms and the other parameters, must be determined by tests on a prototype.
The forces caused by the attraction or the repulsion of the magnets in their movements, represented by arrows (13) and (14) for the higher part of the device and the arrows (15) and (16) fig. 1 for the lower part will counterbalance one another and have no influence on the device.
Their influences will have a local action on the items (A), (B), (C), (D) fig. 1. If the device turns freely, the forces will counterbalance with the friction of the elements during their displacement in water, causing the stabilization speed.
To produce energy, wheels must turn at a very low speed, and to increase the output we must use particularly powerful magnets, able to produce important changes of volumes in the variable-volumes elements, therefore the difference between the Archimedes forces(F) and (F) on each side of the device.
Frictions of the elements during their displacement in water are proportional to the speed of their displacement.
The difference between the Archimedes forces on each side of the wheels (G) and (D), is proportional to the shifted volume of water.
This device is intended to produce a mechanical and ecologically clean energy, easily transformable in electric power.



Volume min.

Texte 01 11357

ABREGE

Dispositif de production d'énergie mécanique immergé verticalement, utilisant la force de la gravitation et la force d'Archimède pour son fonctionnement.

L'invention concerne un dispositif permettant la production d'énergie mécanique, en utilisant des éléments à volume variable par gravitation et la force d'Archimède pour son fonctionnement.

Des éléments à volume variable changeront leurs volumes en fonction de position des masses, se trouvant à l'intérieur. ce dispositif est immergé et constitue de deux roues (1) et (2) et d'éléments à volumes variables Fig.1, lesquels sont fixés aux maillons d'une chaîne (8), provoquant la différence (ΔF) entre les forces d'Archimède (F 1) et (F 2) de deux cotes du dispositif Fig.1, laquelle entraînera la chaîne dans le sens indiqué sur le schéma par des flèches (9) et la rotation des roues (1) et (2) Fig.1.

L'ensemble se trouvant immergé verticalement, le changement de volumes des éléments s'effectuera en fonction des position des masses se trouvant à l'intérieur. Les masses, moyennant la gravitation, changeront le volume des éléments, et la force d'Archimède entraînera la rotation des roues (1) et (2) Fig.1, selon les positions des éléments par rapport aux axes des roues.

Figure pour l'abrégé : Fig. 1.

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SUMMARY

A mechanical device of production of energy immersed vertically, using the force of gravitation, and the Archimedes force for its operation.

This invention relates to a device allowing the mechanical production of energy, using the variable-volumes elements by the gravitation and the Archimedes force for its operation. Variable-volumes elements will change their volumes according to position of the masses, in their inner parts.

They are made up of two wheels (1) and (2) and of the variable-volumes elements Fig.1, which are immersed and fixed with the links of a chain (8), producing the difference (ΔF) between the Archimedes forces (F 1) and (F 2) of the two dimensions of the device fig 1, which will draw the chain in the direction indicated on the diagram by arrows (9) and the rotation of the wheels (1) and (2) Fig.1. The whole device is immersed vertically.

The change of volumes of the elements will take place according to the position of the masses inside. The masses, with the help of the gravitation, will change the volume of the elements, and the Archimedes force will produce the rotation of the wheels (1) and (2) Fig.1, according to the positions of the elements in relation to the axes of the wheels.

Diagram for the summary: Fig. 1.

English text complete :

http://www.besslerwheel.com/forum/viewtopic.php?t=44&sid=16dc3fa75578857125de10042f4a330e

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Drawings: (3D)

http://ingenrw.narod.ru/Andv1/Opi2_1.html

Drawings(PDF), original text :

http://www.inpi.fr/front/

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" Inventeur / Déposant "

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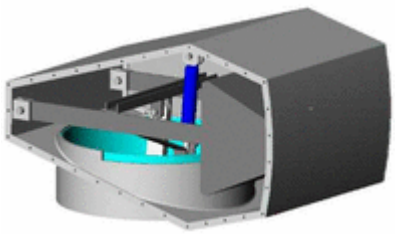
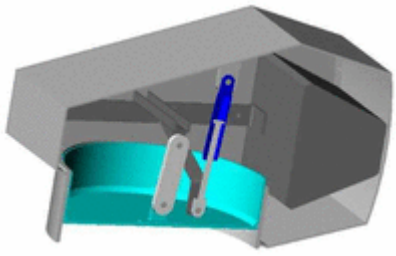
Moteur 01 11357



Un type d'élément à volume variable avec son mécanisme.

The translator at;

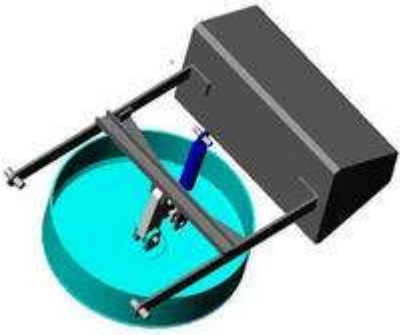
http://fr.altavista.com/babelfish



L'élément à volume variable représenté en coupe.

Сокращённый текст на русском :
http://sciteclibrary.ru/cgi-bin/yabb/YaBB.cgi?board=general&action=display&num=1052934978&start=0

http://ingenrw.narod.ru/Andv1/Opi2_1.html

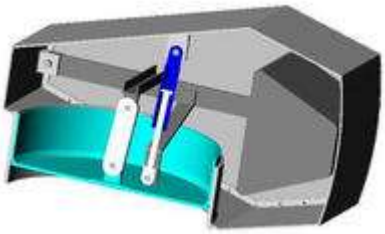


La masse et le mécanisme de l'élément à volume variable.

Publication :
http://www.faraday.ru/content13.html

Dessins (Drawings):

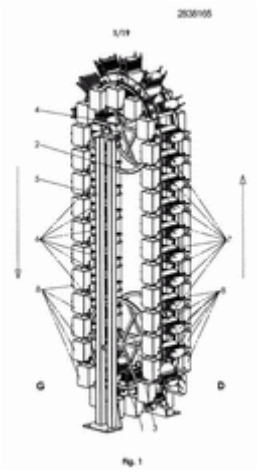
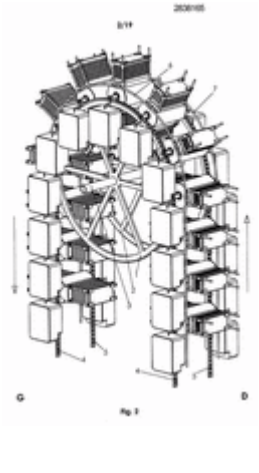
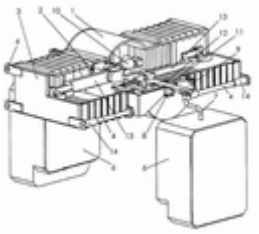
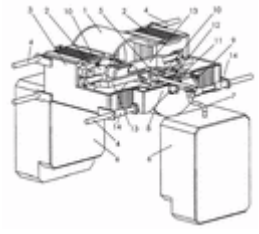
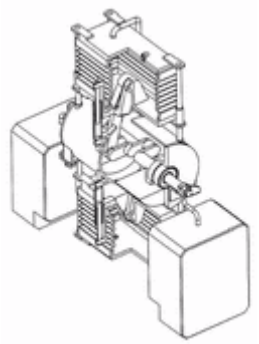
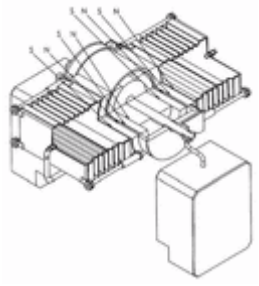
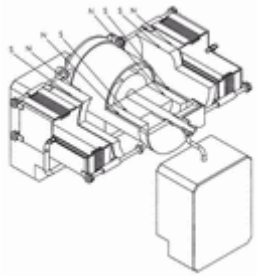
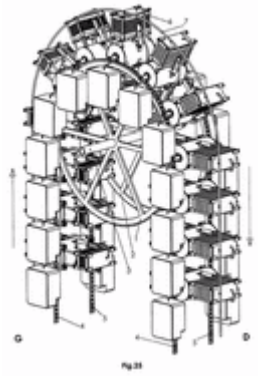
http://ingenrw.narod.ru/Andv1/Opi2_1.html



L'élément à volume variable représenté en coupe.

Text (Eng.)

http://www.besslerwheel.com/forum/viewtopic.php?t=44&sid=16dc3fa75578857125de10042f4a330e

Moteur gravitationnel

Moteur gravitationnel.

L'invention concerne un dispositif qui permet la production d'énergie mécanique en utilisant des éléments à volume variable et la force de gravitation pour son fonctionnement.
Les éléments à volume variable changeront de volume en fonction de leurs positions, du coté gauche (G) ou droit (D) du dispositif. Il est constitué des roues (1) et (2) tournant sur les axes (3) et (4), et des éléments à volume variable (6) et (7), lesquels sont fixés aux maillons des chaînes, provoquant le déséquilibre des poids des deux côtés du dispositif Fig. 1.
Ceci entraînera les chaînes dans le sens indiqué sur le schéma par des flèches, et la rotation des roues (1) et (2), entraînant la production d'énergie mécanique.
Le changement de volume des éléments en fonction de leurs positions est assuré par les masses (8), qui maintiennent les axes (vilebrequins) toujours dans la même orientation. Les éléments évoluant dans la partie gauche (G) sont tournés à 180° par rapport aux éléments de la partie droite (D) du dispositif, vu qu'ils sont remplis de liquide, la différence des volumes expliquant la différence des poids.
Ce moteur n'a pas été vérifié par calculs ni testé sur un prototype.

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Gravitational engine.

The invention relates to a device allowing the mechanical energy production using the elements variable volume and the force of gravitation for its operation.
The elements with variable volume will change volumes according to their positions, of with dimensions the left (G) or right (D) of the device. It is consisted of the wheels (1) and (2), turnings on the axes (3) and (4), and of the elements with variable volume (6) and (7) fig. 1, which are fixed at the links of the chains, provocant the imbalance of the weights of the two with dimensions ones of the device fig. 1, this will involve the chains in the direction indicated on the diagram by arrows, and the rotation of the wheels (1) and (2) fig. 1, involving the mechanical energy production. The change of volumes of the elements according to their positions, is ensured by the masses (8), which always maintain the axes (crankshafts) in the same orientation. The elements evolving/moving in the left part (G) are turned to 180° compared to the elements of the right part (D) of the device, considering which they are filled of liquid, the difference of volumes explaining the difference of the weights.
This engine was not checked by calculations nor tested on a prototype.

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To choose 02 00723 :

http://perpetuum.monsite.wanadoo.fr/page8.html

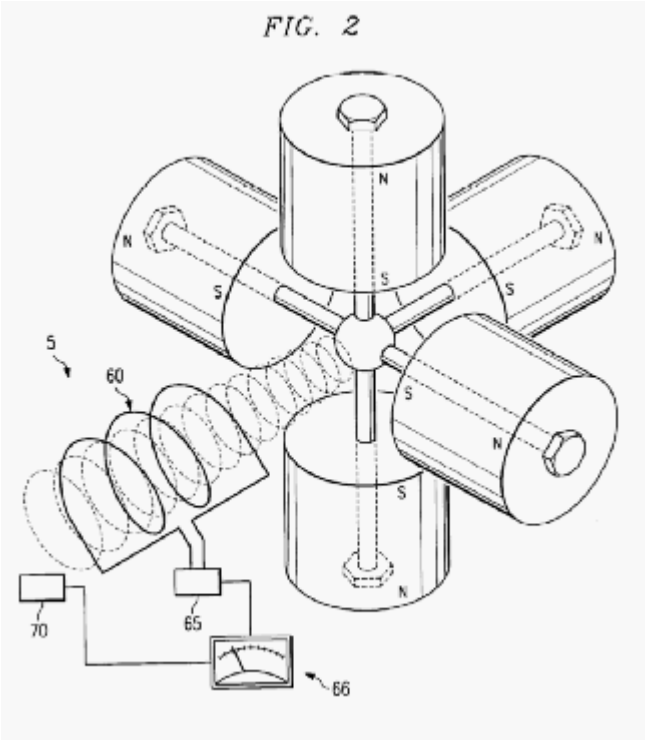
Moteur 02 00723

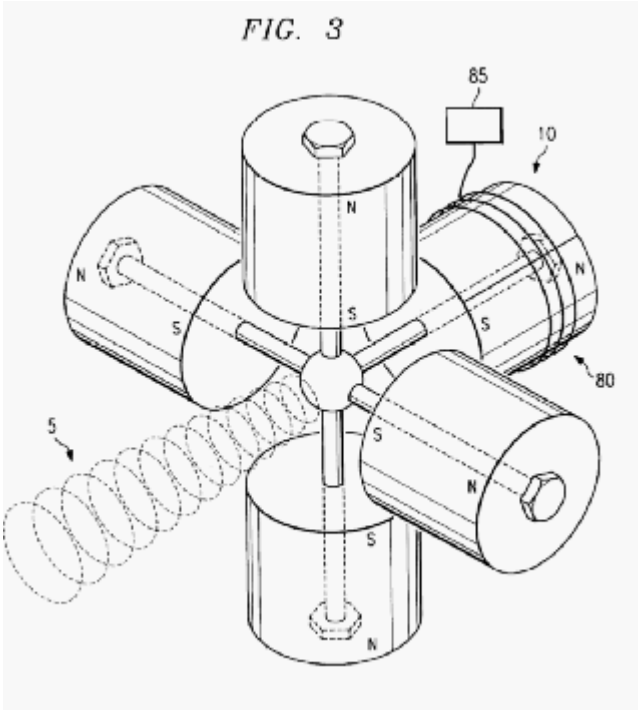
Magnetic Beam Amplifier:

This page is a preliminary outline of some ideas/findings regarding the Magnetic Beam Amplifier configuration as detailed in US patent #5,929,732. And in addition, the sensing capacitor array detailed in US #5,637,946 by the same author, Boyd Bushman.

Specifically, this "magnetic beam" that Bushman describes, may have properties of, or application to the Primary Energy beams using the inert gases. Either with generating these PE beams, or sensing and measuring same, or both.

Below are copies of drawings from the first patent noted above, showing the preferred embodiment:





According to the patent, this configuration creates a beam of some kind, represented by the series of dotted line circles extending out from the device. The author claims it is magnetic energy, but my own magnetic field analysis, and experiments show the magnetic field, while enhanced in this direction, does not appear to extend out to five feet as is claimed in the patent. (the magnetic flux does not appear to go this far at any appreciable strength, but a subtle energy effect does!)

The unusual properties of this beam, as described by the author, are very similar to the properties of a Primary Energy beam. And as the inert gases do exist as natural components of air, perhaps this beam he speaks of is a concentrated PE beam? (note in the next chapter a more powerful "Beamer" device is constructed, and it has a PE emanation all the time - and more so when you insert inert gas tubes into the "beam" area.)

He further claims that if you place a conductive coil (60) in the beam, and connected in series with a special unbalanced capacitor (65), and a voltmeter; that a voltage is produced which will vary if any object is in the beam, or any movement occurs in the beam. (yet to be tested)

Alternatively, if you place just the special capacitor in the beam (70),it will register a voltage if any movement occurs in the beam.

He further claims that if you place a coil over the unopposed magnet (80), and apply an ac current at various frequencies, you can modulate this beam, causing various effects at a distance.

An interesting effect he mentions is to have two such devices aimed at each other, and separated by up to five feet, with one having all south poles inward, and the other all north poles inward. And place a high voltage source adjacent to one beam source *(such as a Van De Graff generator - set to cause sparks to jump 3/4" - meaning approx 7,500 volts in standard air)* that there will be an arc extending along this beam for the entire five feet, to the other beam device!

I find this claim to very interesting, as the PE theory, indicates this energy is responsible for matter formation, and gravity, and that there is implied in the theory a method to generate electrical power directly from a "gravity beam".

This is due to the Tendency for nuclei and electrons to remain in their respective nodes and antinodes of this PE, and a preferential drift of these nodes/antinodes results in what we observe as the attraction of gravity. If you have some free electrons in a conductor or in a semi or quasi conductor - they would be influenced by this anti nodal drift.

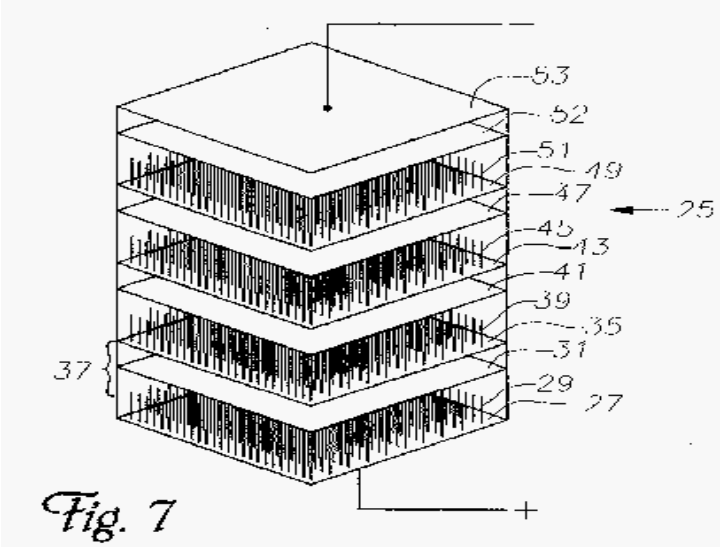
If the mass of this material (either conductor or quasi conductor) is not free to move under the influence of this nodal/anitnodal drift (gravity), there would then be a tendency to produce an electric charge separation, as the free electrons would be induced to drift. This charge separation would result in an excess negative charge in the direction of the gravity - for example: the preferential drift near the earth is towards the planet, and thus one should expect that free electrons in the atmosphere (a quasi conductor and dielectric) would drift towards the planet under this influence.

The bulk mass of the atmosphere is pushed towards the planet, but reaches an equilibrium from the "pressure" of the air molecules against each other. The free electrons are not necessarily subject to this same equilibrium, and would continue to drift towards the planet. This results in the natural (and not fully explained by conventional science) electric field in the atmosphere!

This mechanism may explain the natural electric field of the atmosphere, as being due to gravity. And it follows that if one can create an isolated gravity beam of this nodal drift - that if you fix a conductor, or quasi conductor in this beam, that a charge separation will occur. You could then harness this energy directly as electrical current.

So if this magnetic beam amplifier is actually a concentrated PE beam, then perhaps this anomalous arcing effect is due to the gravitic nature of the "beam", in a similar manner as noted above.

The following is a drawing of the special unbalanced capacitor array:



It consists of parallel conducting plates, with a plurality of pins or points on one set of plates, facing the opposite plate, and separated by a dielectric, and air gap.

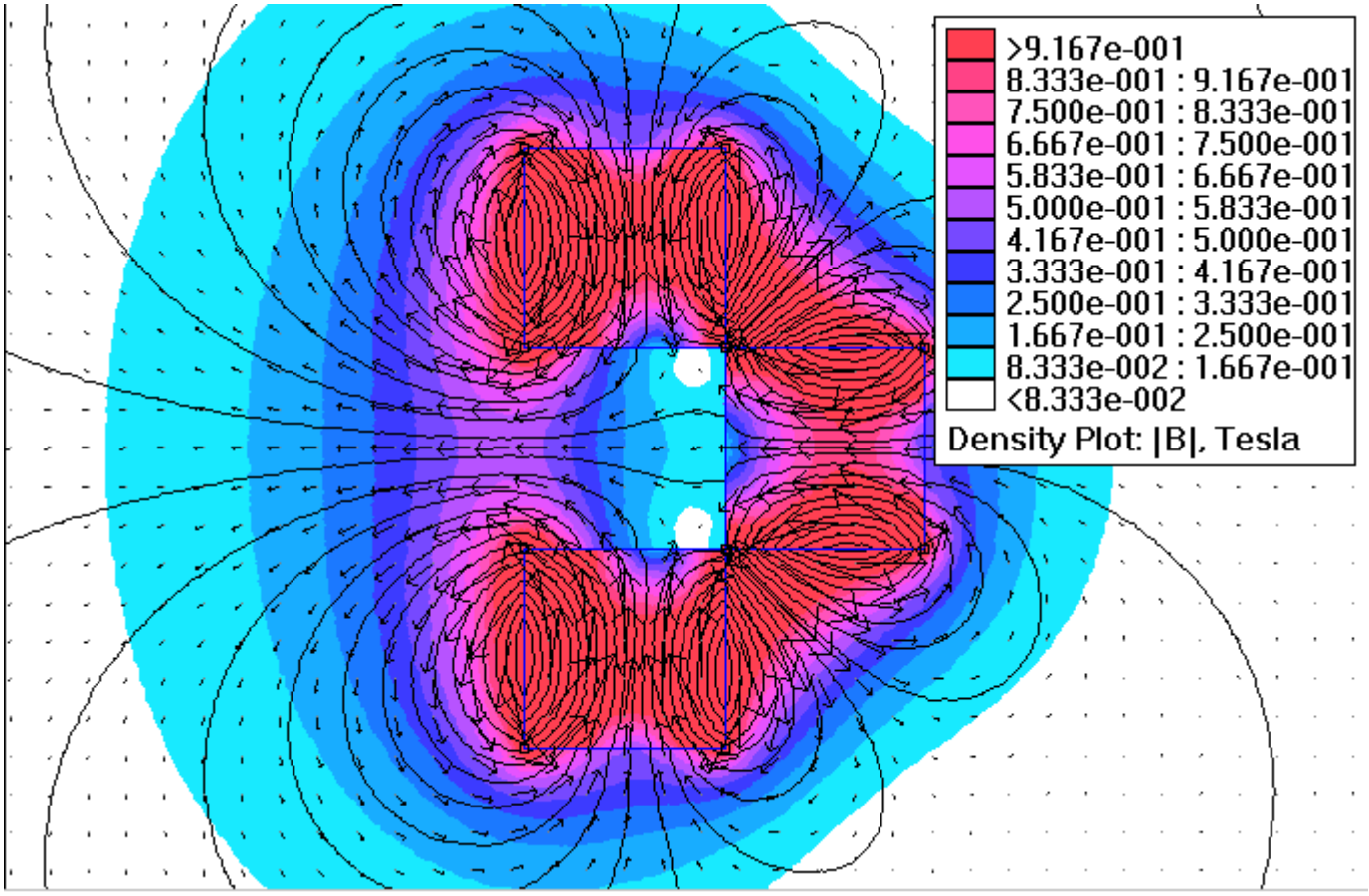
It is reminiscent of the asymmetrical capacitors which produce a "thrust" in the Biefeld-Brown Effect. Which has been shown to correspond with gravity.

The variation from a Brown device, is that it has an array of points vs a large area plate, as opposed to a single pair of point and plate in a strict Brown device.

If this magnetic beam is in fact a concentrated lower phase PE beam, and a very small gravity flux is thereby produced, an array as this might be able to detect it. The very small effect on each pin, is added together to produce a measurable charge separation, and further amplification of this charge is by adding multiple stages in a stack. (gravity beam direction would most likely be along the pin axis - and should give different output if the angle of incidence is other than this axis)

A further possibility that might occur with this arrangement of magnets is a cavity resonance effect. I have observed that this PE can traverse most matter with ease, and is only slightly attenuated by matter. However, it seems to be strongly reflected or refracted by high gradients of magnetic fields. An arrangement of high magnetic field gradients occurs with this configuration. And a resonant cavity is then formed in the device which causes multiple reflections of this energy in the "magnetic" cavity, causing some coherence, or pulsation and convergence into a concentrated beam. (not unlike how a maser or laser works - the retro reflections also cause more stimulation and the unmaskings get into "phase" thus resulting in more coherence)

The following is a magnetic field plot for the preferred embodiment, using 2" diameter Neodymium Iron Born magnets:



The device is shown in cross section, through the center axis, and showing only the top, bottom, and unopposed magnets.

I suspect that the correct proportions of magnet size, strength, and position are critical for optimal performance.

There are several related properties of magnetic fields, which contribute to release of PE.

The flux density per say is related to the aether stretch - or amount it is compressed or expanded away from the surrounding value. This contributes to more PE being released from the Primary Points masked by an inert gas atom (omnidirectionally, or mostly so).

The flux density gradient, noted by the distance between flux lines of equal magnitude, causes or represents differing layers of aether flow rate (velocity), and stretch (aether density). As such the hypothesis is that these differing layers or more specifically the boundaries between these layers, reflect or refract the PE.

You can see in the above, that a focusing, and possible resonant cavity occur in the field patterns within the region inside of the bucking magnets. And you can clearly see that while the magnetic flux is concentrated on the open side of the device, it does not extend any more than six or seven inches at any appreciable amount. (although when adding the effect of the two magnets not shown, it would be greater, but not five feet!)(there is

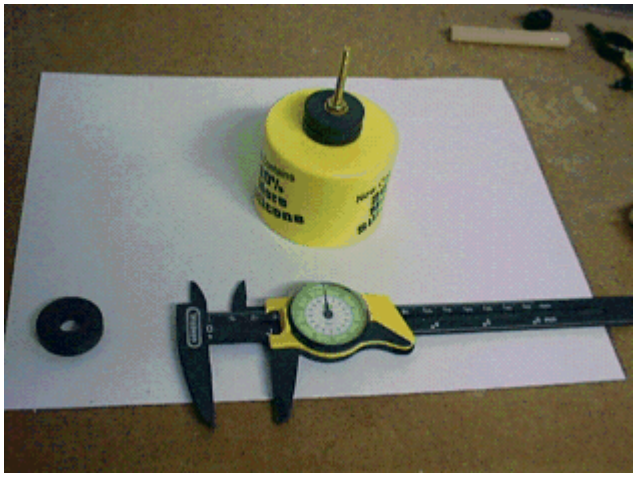
an effect that extends out 5 feet and more, but it is not specifically the magnetic flux!)

Again, as I have said many times, the patterns shown in the field analyses are remarkably similar to the patterns observed if one is considering fluid dynamic flow, in a compressible medium. And indeed the math for magnetics, is almost exactly the same as that for fluid dynamics. As mentioned the "magnets" are like aether pumps, and also make a "venturi" through which the aether flows. As with any compressible fluid, as it passes through a venturi, it's velocity increases and it's density or pressure decreases.

This aether flow model, neatly explains all behaviour of magnetic fields that I can think of. (and it may very well be that this alteration in the local aether that is produced by magnetic fields, and the resulting flows, and changes in the density of the aether make warps, or asymmetries in the natural background PE that actually makes gravity! So in a sense the "force" we observe associated with magnetic fields, is actually a local or small scale "gravity beam" already!!!)

(this is highly speculative but not unreasonable given the PE theory and findings so far with the PE or subtle Primary Energy. Bushman, the author of the above patents, worked at Lockheed, overseeing many classified research projects. He is seen in an interview for a program done by the BBC called "Billion Dollar Secrets". In it he reveals that he has done some drop experiments with certain "bucking" magnet assemblies, and that they accelerate at different rates than non magnetic objects of the same size and weight! My bet is these "bucking magnetic assemblies" are non other than the "Magnetic Beam Amplifier"!) (and if so, we have a key piece to the puzzle of how to affect a controlled gravity beam or effect inherent in this structure!)

The following are photos of a preliminary experiment of this configuration, using ceramic ring magnets from Radio Shack:



It was simpler to use this spray can lid, then to make an armature to hold the magnets in this configuration. In addition, this allows a gas container to be placed in the center of the magnet arrangement. A larger version is possible using more magnets, or longer magnets, and even more that 4 points around the periphery, by using a PVC pipe cap of larger diameter - such as 4" pipe. (see next chapter)

The dial caliper is set at one inch to show scale.

This configuration does produce a PE beam, even from just being in the low concentration of inert gases in the air. And when a gas tube is placed in or in front of this device, it produces a very intense PE beam, following the pattern outlined in the original patent.

In addition to the beam, there is felt a strong omnidirectional emission, both when empty and with gas tubes, but not as intense as the beam portion.

It should be noted in my previous experimentation with gas (PE) beams, that there appeared a "quantum" nature

to the beam intensity. That is that when the magnetic field strength is slowly increased as in a solenoid, the beam intensity, does not follow this increase in a linear fashion. It (beam intensity) increases step wise, while the magnetic field strength is increased steadily.

It is conceivable to me, that by using rare earth magnets, which are considerably higher energy than ceramic magnets, and further if rare earth magnets of the dimensions he prescribes are used, the magnetic flux strength/density is considerably more than with ceramic magnets, and perhaps more than with conventional solenoids. Therefore it is also conceivable that the inert gases in the air could be induced to release considerable PE, and with the added resonance possibility, the resulting coherence amplification, as in a laser, could be generating a strong PE beam - perhaps even crossing the threshold into the "higher phase" effects of the PE.

In conclusion, this configuration warrants serious further study. And the detection possibilities with his unbalanced capacitor arrays, are also worth investigation.

Balash Ahmedov was born, 16 August, 1971 in Baku. He has graduated Baku Polytechnic Technicum in 1992 and has worked as engineer in Space Research Bureau.
He works as a volunteer at peace organization - International Eurasia Press Fund, which deals with prevention and resolution of conflicts and protecting of human rights.

INFORMATION ABOUT ALTERNATIVE ENERGY SOURCES AND TECHNOLOGIES

Alternative energy sources in last years became very actual field for engineering. The issue become very actual, because of environmental problems and by reducing of traditional energy sources. Alternative sources include wind, solar, thermal, photohydrogen, etc. As an example alternative energy technologies are shown fuel cell, photovoltic and MHDG (Magnito-Hydro-Dynamic-Generator). MHDG based on plasma technology. And this technology for efficiency has most high index among those alternative energy technologies. As it is known, plasma technology also has been used in SANP-converter which were used as energy source in Satellites in 60th years. In all these technologies (MHDG, SANP) were used hot plasma. That is, for getting independent charged particles stream plasma should be heated until $2000C^0$-$3000C^0$.

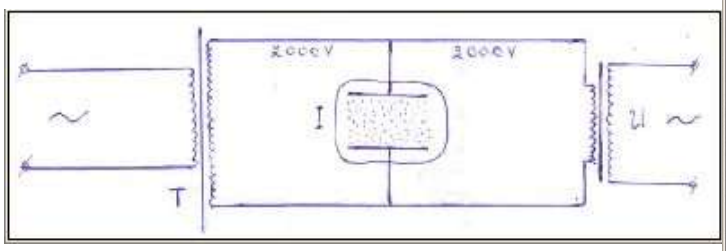
THE NEW METHOD OF THE ELECTRIC POWER PRODUCTION

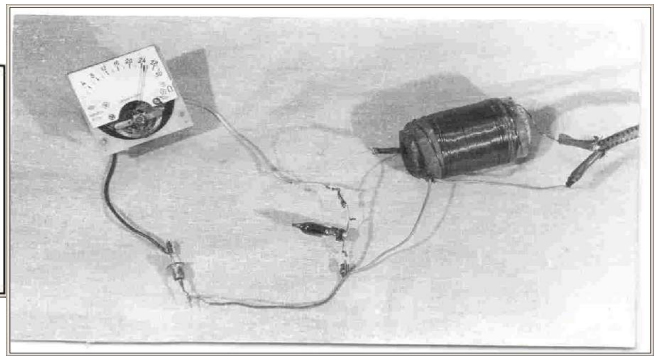
In my discovered energy converter has been used plasma technology, too. After 8 years of research work I could produce electric power from plasma, but I have used in my converter cold plasma, that
is for getting independent charged particles stream I have not heated plasma. And also because of low effect, I had denied using magnetic field for production electric power from plasma as it had been used in MHDG. For production electric power in my converter I used intensive electrical field, not electrostatic field. It seems impossible, but my experimental result and theoretical investigation has proved the rightness and superiority of my method. On the contrary using electrical field let me get wonderful results. I used electrical field for both getting plasma and giving speed to plasma's charged particles. That's why, efficiency of my converter is very high. Besides, in consequence of using electrical field I could make my design very simple and this makes their production easy and cost effective. During working process of this converter there is not any waste. Therefore, it is very desirable from the environment pollution point of view. So, this is an unusual and most effective method.

DESIGN DESCRIPTION

Referring to provided experiments and scientific calculations hereby I describe the working process and feasible project of my converter which is suitable for more needs.
In my converter the main element is ion device. Plasma is creating in that device. That ion device consist of glass vessel, in which were inserted two plain electrodes. Inside of that device should full of inert gas (neon) with addition cesium. The pressure of gas in the ion device should make 10 mm.m.c. (mm. mercury column). Cesium should add in amount of %40 (percent) of the whole gas volume. The ion device's electrodes space size should make $S=10cm.^2$ and midelectrodes distance l=2 cm. That time midelectrodes space volume would be equal to $V = Sxl = 10cm.^2 \text{ x } 2cm. = 20cm.^3$
In normal atmosphere pressure (760mm.m.c.) in this volume may exist $No=VxL=20cm.^3 x\ 2.7x10^{19}\ \ 1/cm.^3 = 5.4x10^{20}$ gas atoms. Where L- is Loshmid number. In 10mm.m.c. pressure in this volume should enter $N_1 = N_0/n = 5.4x10^{20} / 76 = 7x10^{18}$ gas atoms, where n=760mm.m.c./ 10mm.m.c.=76.
So, that ion device is producing electric power by next way. For getting plasma and also for producing electric power from plasma, I need in voltage source. Therefore, first, from industry electric power set is transferring a.c. on voltage 220V and with current intensity 2Ampere to the input of the raiser transformer. By help raiser transformer that current voltage w' d be raised up to 2000V. That time current intensity index in the out circuit of the raiser transformer should be decreased till 0.2Ampere. Then high voltage current is transferring to the electrodes of the ion device. The electrodes of the ion device also is joined to the user element circuit. As it has been remarked above to the ion device added cesium. It makes ion device resistance very low. When high voltage current w' d be transferred, then that current should flow across ion device circuit, not user element circuit. Because, in any case user element circuit resistance would be bigger than ion device resistance. This fact also was gotten from experiment. In the ion device should hold the next process. First, under influence intensive electrical field cesium atoms would easily decay to independent electrons and positive ions. These charged particles under influence the same electrical field will get a great fly speed and move to the electrodes. On way to the electrodes these charged particles would decay neon atoms to charged particles. If third part of whole gas atoms would be taken from cesium, then all gas atoms in the ion device should be decayed to charged particles and under influence intensive electrical field these particles would fly and fall to the electrodes. So, current will flow in midelectrodes space. This time the common charge of electrons (same ions) in the ion device would be $Q_0 = N_1 x\ e = 7x10^{18} x 1.6x10^{-19} C = 1.02$ Culon, where e- is electron's charge index. As above remarked, current intensity index of the high voltage current is 0.2 Ampere. As it is seen, it is very low. Therefore, when the transformer current would flow across ion device, then in this process will participate near %2 of the charged particles. As proved by experiment, the remain part of those charged particles (%98) will create current in the user element circuit.

Electrical scheme and experimental device of my design:





T-raiser transformer, I-ion device, U-user element.

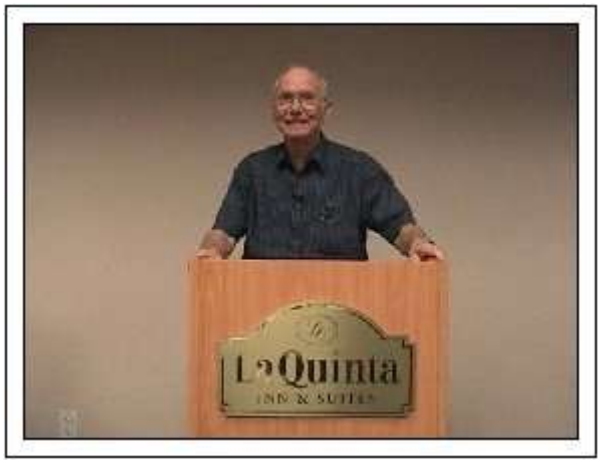
Voltage index of this current should be equal to current voltage that transferring to ion device electrodes. Because as known voltage index in the user element circuit is determined by electrons kinetic energy in plasma. These electrons are getting their kinetic energy from potential energy of electical field. By law of conservation of energy in time of these energy turnings quantity of electrical field remains constant. That is voltage index in the user element circuit should be equal to 2000V but current intensity index depends on two parametres . First, from common charge and second fly speed of the electrons that create power in the user element circuit. Common charge of these electrons will be $Q_1 = Q_0$ x %98= =1.02Cx0.98=1Culon. Under influence intensive electrical field these electrons should get v=27000km/sec. fly speed and within a nanosecond would fall on the electrode. Meanwhile, positive ions should get near v=100km/sec. fly speed and in 0.0001second would strike blow to the electrode, breaking off independent electrons. That is, already in a 0.001 second all electrons (common charge is 1Culon) would fall to the electrode and ions would breake off electrons from the electrode. 0.001 second is the time of the one act of the electrons exchange between electrodes. Then, in a second such acts would happen 1000 times. That is, in the user element circuit in a second will pass 1000 Culon charge. By the other words, it means current intensity index in the user element circuit would reach up to 1000Ampere. Such big currents can be used in the powerful engines, transformers, etc. As remarked above, that ion device acts by a.c.. So, producing current also will be a.c..

I had discovered my new method of electric power production by practical experiment and have confirmed once again the reality of this method by holding many experiments in another devices. Many physices-scolars also appreciated the rightness of my method and experimental results. I would like note again that the work principle of my converter is based on Edison's effect and this effect was used as a work principle in many converters.

For more information, please, write to: akhmedovba@aznet.org

Fonte: ***http://www.fortunecity.com/greenfield/bp/16/thepowerwheel.htm***

The Power Wheel of Calvin Bahlmann.



The Inventor Calvin Bahlmann

This invention was presented to an audience at the inventors weekend 2001 at La Quinta Inn, as run byBruce Perreault of Nuenergy

My understanding of the device has been obtained from watching a video of the demonstration and lecture by inventor ,if you are interested you can obtain a video from Bruce at the above web site link.

This is my understanding of the device although I may have missed something along the way .

Warning

Playing around with charged capacitors is extremely dangerous and may result in loss of your life if handled incorrectly.

This material is displayed for educational value and no claims are made for its accuracy so please carefull..

One tip when using high voltage is to use rubber gloves and keep one hand in your pocket at all times to stop a high charge going through your heart.

At the conference there were no claims made that this was a free energy machine although some detailsobtained may indicate otherwise.

The power wheel

The Device appears to be twin connected rotating disks with 32 Neo Iron Boron magnets grade 30 of approximately 11,000 gauss each. and attached to rim of each wheel. and placed on a frame assembly.

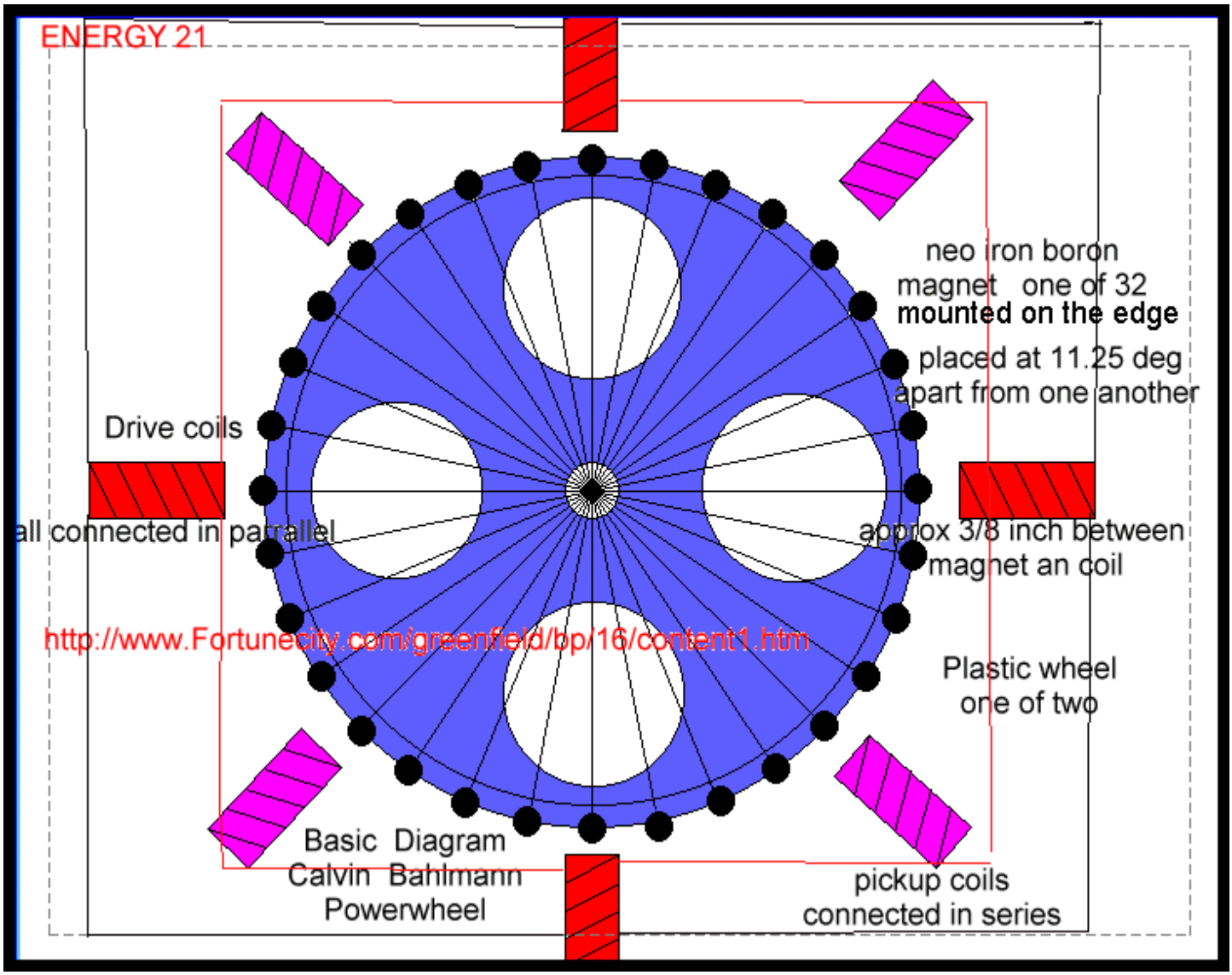
There are 32 magnets to each disk mounted at 11.25 degrees separation from each other as indicated in the drawing making 64 magnets in total .

All magnet face outwards in a (N) north pole direction.

Positions in degrees are as follows

0,11.25,22.5,33.75,45,56.25,67.5,78.75,90,101.25,112.5,123.75,135,146.25,157.5,168.75,180,191.25,202.5,213.75,225,236.25,247.5,256.75,270,281.25,292.5,303.75,315,326.25,337.5,348.75

I not sure of the size of magnets but apparently in 2001 they were costing about $5.00 each.



basic diagram of the power wheel only front side is shown for clarity ,the back wheel is exactly the same setup as this side

DRIVE COILS

There are four drive coils positioned 12 ,3,6,9 o'clock positions these are connected in parallel and pulsed fired together to drive the wheel.

The coils in this unit are mounted 3/8 inch from the magnets on the drive wheel but they may also be needed to be adjusted to allow for the magnetic speed drag reduction between the magnet and the coil.

Although not specifically mentioned I think there would need to be some sort of trigger to fire the driving coils whether be a magnetic pickup coil, or optical trigger or even a simple switch.

This unit run in an attraction mode but apparently a repulsion mode is feasible as well I also think the coils would need to fired before being directly opposite each other.

There are an additional four drive coils mounted at the same position for the second wheel of the device as well, one would assume these too are connected in parallel with the other drive coils on the front wheel although not specifically mentioned as such..

This makes 8 drive coils in total.

Output Pick Up Coils

There are four on each drive wheel mounted in a position between the drive coils as per diagram making eight in total and connected in series to give an output of approx 100 volts this is the rectified to give a pulsing dc output that then charges a 1/8 farad capacitor bank consisting of 50 2400 micro fard capacitors of 450 working voltage.

Core material

Calvin mentioned using core material for the coils but did not say what he was using but I myself will be trying some ferrite rods myself.

If the combined output of the eight pick up coils is 100 volts then this means each coil needs to be an output 12.5 volts each , I not sure at what current level but doubt it very high ,may be in the milli amps range.

I believe the entire resistance value of entire output section is 1480 ohms making each coil in series of 185 ohms each.

I believe the inventor acquired these as disposal solenoid coils

The speed of the twin disks spins at speeds varying between 350- 400 rev per minute.

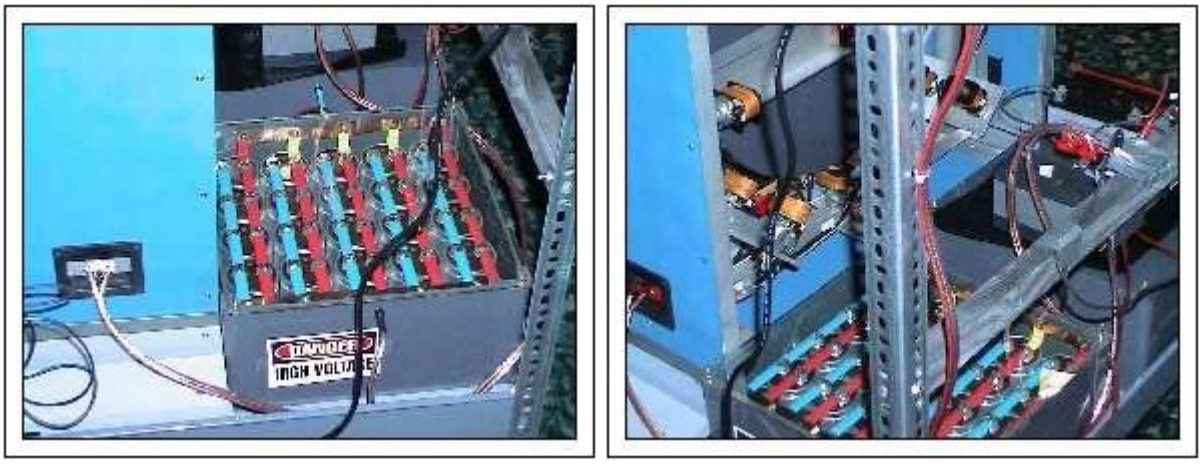
The voltage input to the device varies from 12 to 48 volts but would ideally runs at 24 volts suiting alternative energy systems.

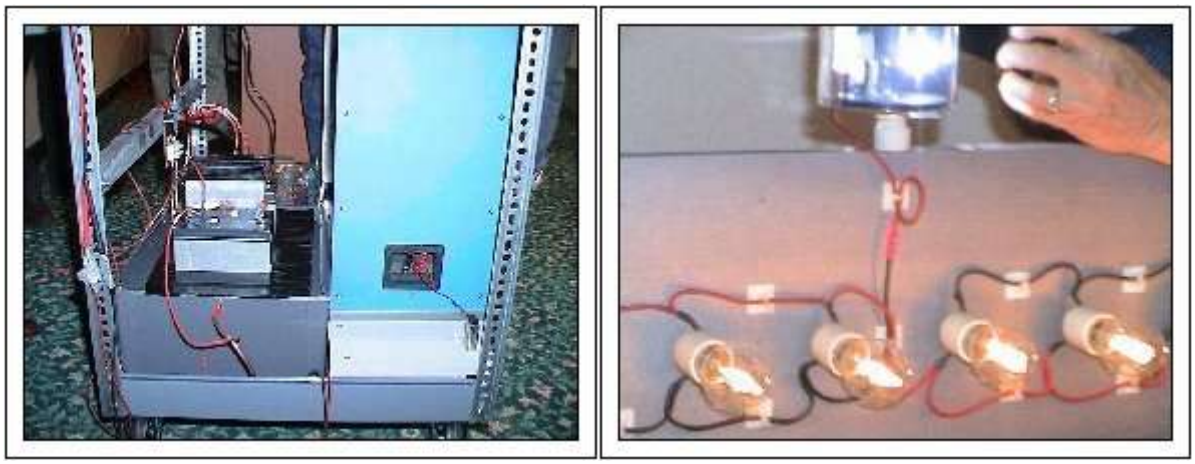
The current produced is apparently 115 milli amps but has been running slower at 3 milli amps according to inventor.

Calvin also demonstrated the wheel using a small 9 volt battery although I think wheel speed did slow down but continued to run.

Calvin was also shown discharging the capacitor bank and producing ark lighting as well as powering a bank of lights.

Some additional photos of the device





Photographs from Bruce Perreault nuenergy website

SOME DETAILS IN BRIEF

TWIN PLASTIC WHEEL of unknown size

64 Neo Iron Boron magnets grade 30

8 drive coils

8 power pick up coils

speed 350-400 rpm

Input power 12-48 volts

Output power 100 volts DC rectified and used to charge capacitor bank

115 milli amps.

I think the intention is then to drop this voltage and charge the battery bank.(this was not made to clear in the video)

Capacitor Bank consists of 50 2400uf 450 working voltage capacitors.

Weight of machine 181 pounds. Not sure if this refers to disc section or entire device.

The device also has a 35 amp 100 volt diode protection on capacitor bank.

The device is not a self starter.

The photos on this page have come originally from Bruce Perreault website and I did the diagram based on my understanding of what was conveyed from the video as purchased from Bruce.

Tips for others:

You may not be able to get a plastic wheel but the following may be of some help.

another experimenters and his eze mirco drive wheel [eze mirco drive wheel]

He has been using a bike rim to make something akin to the power wheel but aiming to make a drive wheel for testakica type machine.

I myself am trying to make a power wheel myself using 36 ceramic ferrite magnets and 4 ferrite pickup and 4 output coils and some large store bought capacitors. and a bike rim in a manner indicated in the last photo.

Please note even charging a 8000uf capacitor with 6 volts for brief period of time is enough to make it spark when leads are. crossed.

I am hoping with a bank of these when connected and fully charged in parallel with give me enough power. to pulse power the drive coils with pulse.

Anyone out there who can help me with coil design please let me know.

Especially a design to use a pickup coil to pulse my coil drives

Anyone out there with some large value working capacitors and does not want them anymore , I would be happy to have them, I afraid I not I a position to pay for them.

Geoff Egel

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Australia

Josef Papp: Noble Gas Engine US Patents

US Patent # 3,670,494
(June 20, 1972)

"Method & Means of Converting Atomic Energy Into Utilizable Kinetic Energy"

Josef Papp

Abstract ~

Method of utilizing potential energy of atoms and various forms of radiation (electrons, photons, positrons, gamma, beta and alpha radiations, etc.) in a controlled power generating system; effective mixtures of chemical elements adapted for use in the method; the preparation of charges of ingredients for use in virtually gas-tight power generating devices; the activation and control of such charges and devices; structural requirements of power generating devices utilizing the methods and compositions.

Description ~

This invention is directed to a source of energy such as an engine wherein the energy is derived from rearrangements within an atom or atoms. Since such rearrangements are reversible, the utilization of suitably charged elements or atoms which are capable of rearrangement permits the conversion of potential energy into kinetic energy over very long prolonged periods of time with a single charge of atoms or elements of suitable composition. The invention is postulated upon the premise that when a substance is exposed to conditions under which the absorption of energy is possible (as by the use of suitable electric charge or discharge), the electrons which are in their lowest energy or ground state take up the energy and pass into the states of higher energy or excited state. The return of electrons to the lower state liberates energy. By the use of atoms of suitable electronic configuration and by the periodic subjection of such atoms to an electric charge or discharge, the electrons may be caused to rapidly move from one arrangement into another thereby permitting the utilization of the energy liberated by the movement of the electrons from one orbit or energy level to another.

Under the conditions here described, the quantum yield is maintained high and by maintaining the radiation above the level at which the molecules stay intact, the electronic energy is utilized as heat. This is attained, in part at least, by the use of substances capable of emitting gamma and beta rays and electrons, and the generation of visible light and fluorescence whereby large numbers of photons

are made available. These substances and conditions, together with cyclic changes in magnetic field, polarity, and potential supplied to activating cells to stimulate radiation, and cyclic generation and condensation of vapors in a trapped volume of noble and other gases capable of existing in higher energy states, produce expansion and contraction or condensation of such trapped gases in a controlled cyclic manner, the energy thus produced being capable of use in generating power which can be converted into rotative or linear forces.

Since theorists in quantum mechanics may come to conflicting opinions and explanations of the same observed results, applicant will state facts and observations and describe an operative and tested embodiment without excessive discussion of theory, applicant being willing to adopt that explanation of some aspects of operation which will stand the test of time.

Among the objects of this invention, I list:

1. To provide a virtually sealed telescoping chamber of variable volume provided with a precharged energy supply having a long life, and composed essentially of noble gases and substances capable of emitting beta and gamma rays and electrons, said chamber being capable of forcibly expanding and contracting in volume under the influence of electrical timing to thereby be used as a source of controlled energy and power.

2. To provide a two-cycle reciprocating engine which does not use fuel intake valves or exhaust valves, does not require an air supply and does not emit exhaust gases.

3. To provide a precharged engine of the character stated in item 2 capable of generating power for a period of from 2000 to over 10,000 hours continuously or until mechanical breakdown without the addition of fuel, injection of air, or discharge of gases.

4. To provide a low temperature system of converting potential energy into kinetic energy.

5. To provide a system or method of generating power by the use of mixtures of gases and substances (referred to in item 1) wherein the reactions are cyclic and under control.

6. To disclose and provide the constructions, elements, and components, molecular and atomic fuel compositions and method of preparation and operation which exemplify the teachings of this invention.

The invention may be utilized in many fields of endeavor for many industrial, scientific and military purposes, both terrestrial, in space and under water. For purposes of illustration and to facilitate understanding, an exemplary reciprocating engine will be described by reference to the following drawings in which:

Fig. 1 is a top or plan view of a single cylinder (of an in-line assembly) of an engine embodying aspects of this invention.

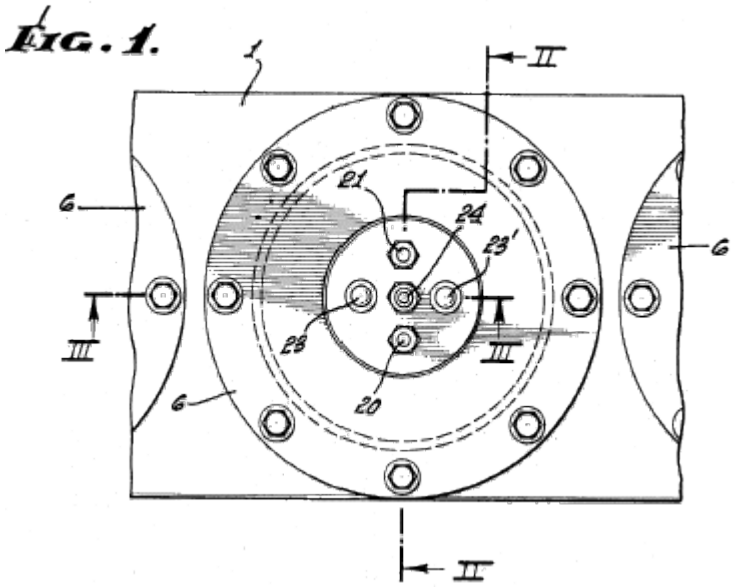


Fig. 2 is a transverse section taken along the plane IIII in Fig. 1, some parts being in partial elevation;

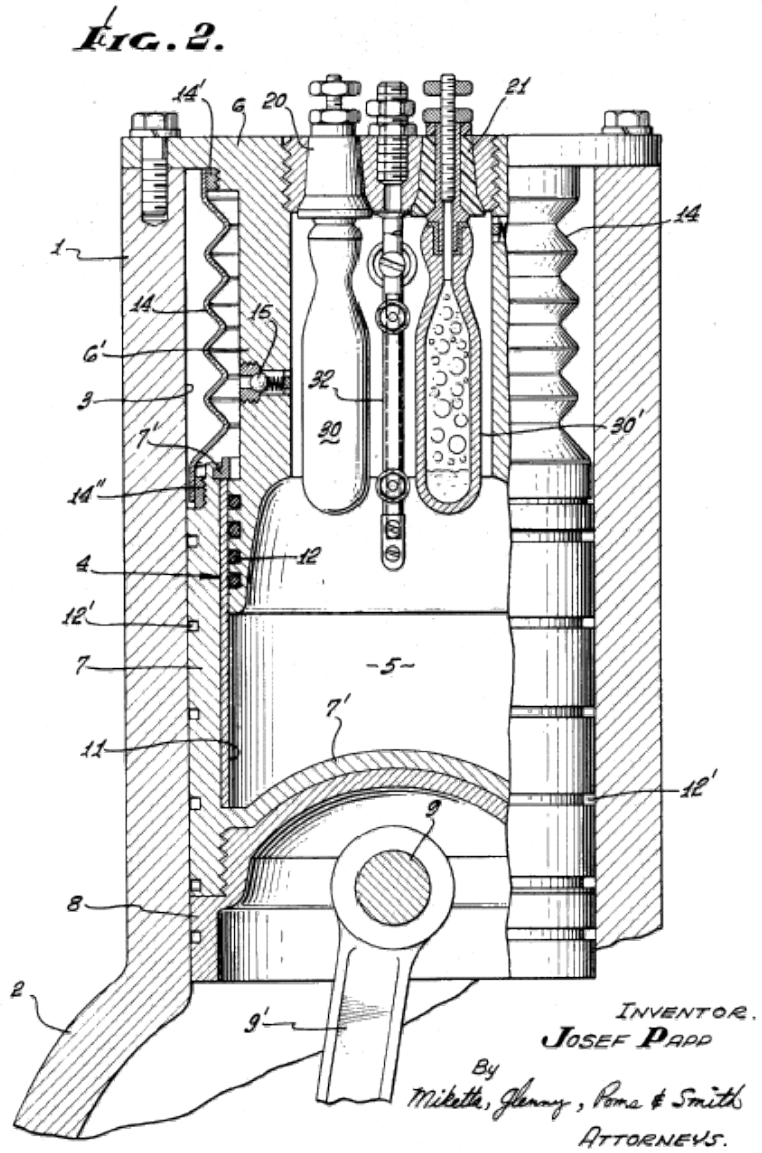


Fig. 3 is a section taken along the plane III-III of Fig. 1;

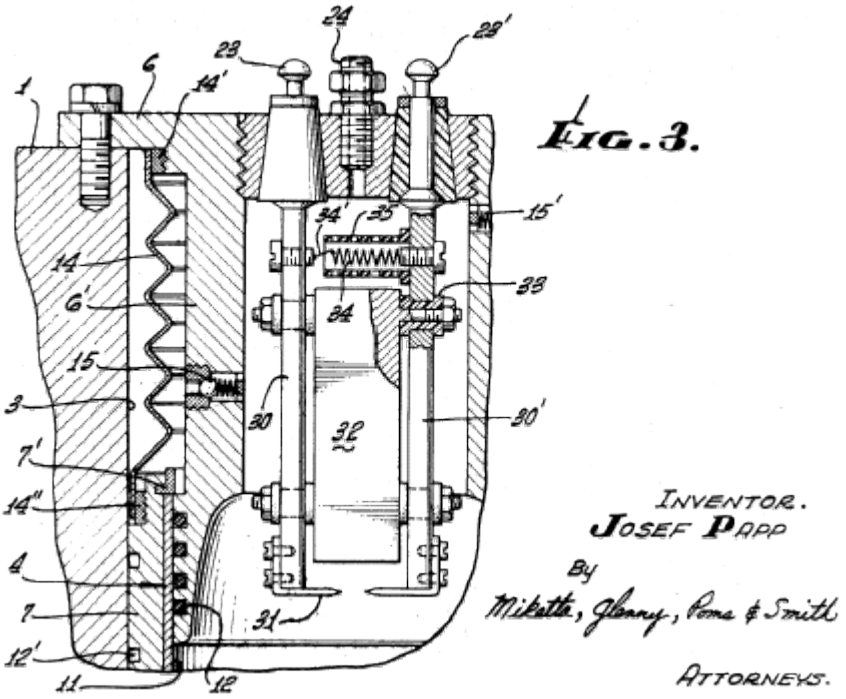
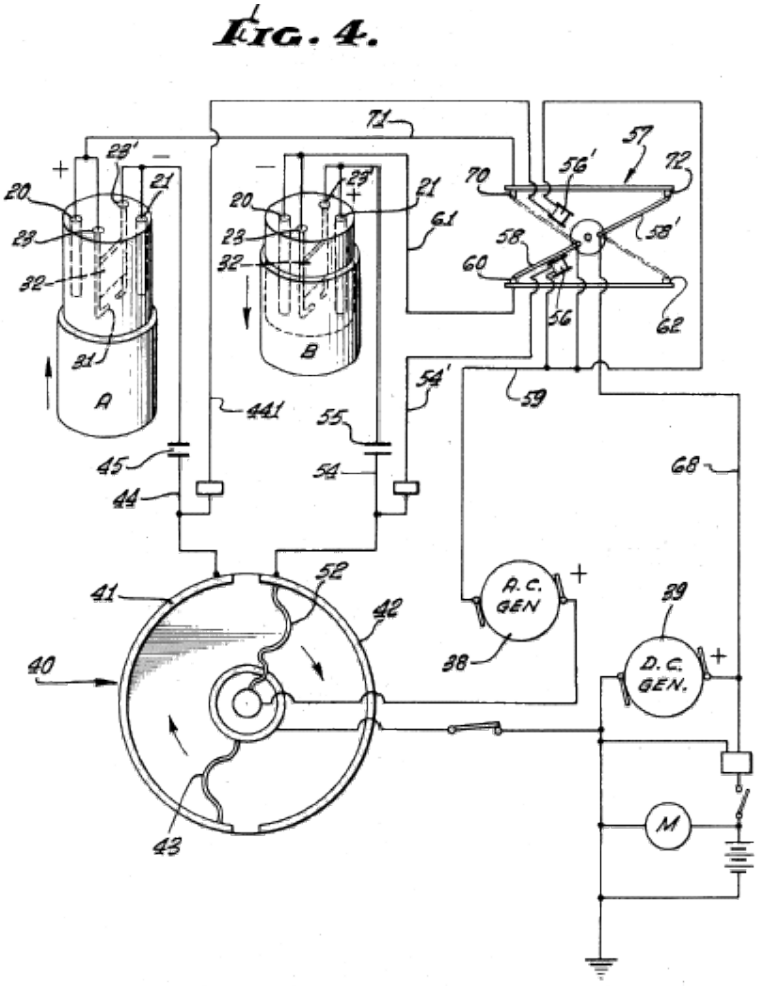


Fig. 4 is a diagrammatic representation illustrating one form of an electric supply and timing control system.



Figs. 1 and 2 illustrate a motor block 1 provided with or mounted upon a crankcase housing 2; the crankshaft, transmission and other conventional elements are not illustrated. The block 1 is provided with a plurality of parallel bores such as 3, each being adapted to receive a cylinder providing a variable volume chamber 5. Each cylinder 4 comprises a stationary upper, hollow head portion 6 firmly attached by its enlarged head end to the upper surface of the block 1, and a movable portion 7 in telescopic relation to the skirt 6' of the head portion 6. The lower end of the movable portion 7 is closed and is shown provided with an inwardly extending domed surface 7'; this movable portion of the hollow cylinder which forms to enclosed chamber 5 is shown attached to a lower extension 8 which carries the wristpin 9 to which the piston rod 9' is connected. It is to be understood that the parts 7 and 8 may be made integral although a removable threaded connection facilitates assembly. In Fig. 2, the chamber is shown in its substantially expanded position; in actual practice, the chamber is precharged with a mixture of gases and an aqueous component and such gases are caused to forcibly expand and contract in a repetitive and controlled manner as hereafter described.

The chamber 5 should be substantially gas-tight; in order to facilitate the attainment of a gas-tight seal, the lower portion 7 is shown provided with a steel liner 11 preferably having a highly polished or burnished, reflecting internal surface. The exterior of the lower end of skirt 6' of the stationary portion 6 is shown provided with a series of grooves carrying o-rings of suitable material adapted to produce a hermetic seal as at 12. The exterior of lower portion 7 is provided with a plurality of oil grooves 12' for distribution of lubricating oil.

In the form of construction illustrated, the head end of cylinder portion 6 is shown connected to the upper end of the movable portion 7 by means of a gas retaining bellows 14 which may be made of any non-oxidizing, flexible and resilient sheet metal, the upper and lower ends of such bellows being suitably attached to the head and to the upper end of movable cylinder portion 7 as by means of threaded internal rings indicated at 14' and 14". A split expansion ring 7' carried by the upper edge of movable portion 7 may be used to prevent separation of the chamber portions during installation. The skirt wall 6' of the upper portion is preferably provided with a plurality of check valves such as 15 at different distances from the head for preventing internal pressure in chamber 5 (or within the bellows) from rupturing the bellows.

The head of the stationary portion 6 is shown provided with internally threaded ports adapted to receive and hold in gas-tight relation the upper terminal portions of an anode 20, a cathode 21, terminals 23 and 23' of an electrode generally indicated at 22, and a centrally located gas inlet fitting indicated at 24. Since the polarity and potential of current supplied to 20 and 21 is cyclically varied to control the expansion and contraction of the trapped charge within chamber 5, the devices 20 and 21 will be generally referred to as activating cells, the current supplied thereto affecting the direction and velocity of electrons and rays emanating from the cells.

It has been found that under the conditions hereinafter disclosed, many of the noble gases and elements found in the periodic table, and particularly their isotopes from periods 2, 3, 4 and 5 of the periodic table, are capable of being utilized as the trapped charge in chamber 5 for operation of the present invention. The noble gases are preferred. They do not contain or produce acid containing materials; although they can be caused to create heat, they will not burn; they are sensitive to and respond to radiations, whereupon they radiate themselves. They are capable of picking up mutated electrons and their electron distances permit electron connections. The noble gases found to be most effective are those of neon, argon, krypton and xenon and their isotopes. Some of the isotopes are capable of internal electron conversion very readily and xenon may be cited as a typical example. 11-Xe is an isotope which is particularly effective in that it is readily capable of internal conversion. Similarly, other gases such as chlorine are unstable in that chlorine contains 8 electrons in the 2nd level and only 7 (instead of 18) in the 3rd level.

Phosphorus and rubidium and its isotopes are examples of elements adapted for use in the activating

cells 20 and 21; phosphorus contains 8 in the second group and only 5 in the 3rd level; rubidium contains 18 I the 3rd level but only 8 in the 4th level and 1 in the 5th. Mesothorium I or radium D can be used in the activating cells to good advantage, although they have a shorter half-life than rubidium. Elements useful in the activating cells are preferably those capable of emitting electrons, alpha rays, beta rays, gamma rays and x-rays, negative beta rays being particularly useful since they are directed to exert their force (as hereafter described) in the direction of the movement of the end wall of the expanding chamber.

Differently considered, it may be stated that the present invention utilizes those elements and isotopes which can be readily caused to emit alpha rays, beta rays, gamma radiations and electrons. In general it may be stated that substances which decay by the emission of negative beta particles and which are also subject to rearrangement within the atom or decay by orbital electron capture, are effective sources of energy in the fuel and system of the present invention.

Similarly, atoms which exhibit alpha particle emission (which generally involves strong interaction between nucleons), are capable of being utilized. Although alpha decay is normally slow and have half-lives which are longer due to electrostatic barriers that make it difficult for alpha particles to escape, the present invention utilizes periodic discharges of electrical energy which speed up the escape of alpha particles and permit the reactions to be utilized effectively in the method of the present invention.

For purposes of illustration (and without limitation thereto), the following examples of charges, activating cells or ampoules and operating conditions are given. The hollow anode and cathode cells may be made of stainless steel, aluminum alloys such as duraluminum, aluminum alloys containing zinc, antimony and cesium. Effective cells were made from an aluminum alloy containing antimony and cesium, said cells containing two grams of red phosphorus 99.5% pure in argon periodically approaching 15-20 atmospheres pressure. Anodes were stainless steel vessels each containing one gram of rubidium, the vessels being filled with 20-30% refined mineral oil and 70-80% argon periodically approaching 20 atmospheres pressure. The variable volume chambers may contain a precharge composed of between 10% and 25% of de-oxygenated water by volume, the remaining volume in the chamber being composed of between 35% and 50% of argon, 8% and 18% of neon, and from about 15% to 25% of xenon and from about 15% to 25% of chlorine.

A method of precharging each of the variable volume power generating chambers may be carried out in a simple and effective manner, as follows: the variable volume chamber comprising the portions 6 and 7, together with the activating cells 20 and 21 in position, may be first filled with de-oxygenated water through the fitting 24 while the chamber is in its fully expanded position. A mixture of say, 60% neon and 40% chlorine is now injected into the cylindrical cavity until about 10% of the water is expelled. The contents of the cylinder are then cycled, agitated or otherwise mixed to cause some of the chlorine to become absorbed by the water.

A mixture of 60-70% xenon with, say, 30-40% chlorine, is then injected into the cylinder until an additional 40% of the original volume of decomposed water is expelled by this second gas injection. The contents should again be cycled or thoroughly agitated.

With the chamber now containing approximately 50% decomposed water by volume, a mixture composed of about 65% argon, 25% xenon and 10% neon is injected within the cylinder or chamber in a collapsed position until a sufficient amount of water is displaced so as to leave within the cylinder between 10% and 25% of the water. Thereafter, the cylinder is expanded to maximum volume position and the last named gas mixture is injected so as to create a pressure within the chamber of between 1 and 3 atmospheres. The injection fitting 24 is now securely closed and the gases therein are ionized by charging with 110 to 440 volt current for a period of about 6 hours; a longer time is required when the volumes are larger and lower potentials are used on the charging

current. Ionization of the charge is conveniently accomplished by supplying the current through the terminals 20 and 23 of an actuating cell and adjacent electrode.

At this point, it may be noted that the terminal posts 23 and 23' extend as electrodes 30 and 30' into the chamber and terminate in a pair of opposed platinum spark gap points 31 and 31' adapted to produce a glow field under stated conditions of operation. The gap between the electrodes may be from 1/16 to ¼ inch depending upon the construction and size of the chamber. The two copper electrodes 30 and 30' carry between them a collector plate 32 which may be made of a copper alloy containing magnesium, manganese and aluminum alloy containing some zinc sulfide or preferably from an alloy containing appreciable quantities of antimony and cesium. As shown in Fig. 3, the collector plate 32 is suspended from the electrodes by means of relatively thin insulators 33 capable of breaking down in the event the voltage across the collector 32 and its terminals 30, 30' exceeds about 12 to 24 volts DC.

Above the collector plate 32, there is mounted a glow coil 34 (preferably made of wolfram) which may be protected by a perforated shroud 35. One end of the coil is connected to electrode 30' and contact with electrode 30 is by way of a thermosensitive, bimetallic element 34' which disconnects the glow coil after the initial heating of the environmental gases has been accomplished.

The collector plate 32lies in a plane between the two activating cells 20 and 21 as shown in Fig. 2. The preferred distance between the two activating cells may vary from ¼ inch to ¾ inch. It is important however that the spark gap 31 of the electrode assembly extend slightly below the bottom of the two activating cells so that when the cylinder or chamber is in its collapsed or minimum volume position, the spark gap extends into the aqueous medium of de-oxygenated water in the bottom of the chamber. Similarly, it is desirable that the extreme lower ends of the activating cells contact or are in very close proximity to the water in the bottom of the chamber when the chamber is in its collapsed position.

Many virtually instantaneous radiations, reactions, changes in energy levels, changes in direction of radiations due to electron charges absorbed by the collector plate and electromagnetic field effects, luminescence and fluorescence, photon electronic absorption and emission, endothermic resultants caused by the release of chlorine from the water, exothermic results caused by discharges between the points of the gap, etc., take place in the chamber. The reversible reactions are controlled by the selection of the atomic constituents of the charge and activating cells and a unique supply of electrical energy. One form of such control system, adapted for use with any multiple of two variable volume chambers herein before described, is shown in Fig. 4.

Two variable volume chambers of an engine are illustrated at A and B; A is shown at the beginning of an upstroke ad B is show at the beginning of a downstroke toward expansion. Activating cells are indicated diagrammatically at 20 and 21 and the electrodes are indicated at 23 and 23' with the collector plate 32 therebetween. During operation of the system, it is desirable to supply alternating current as well as direct current and for this reason the diagram illustrates an AC generator at 38 and a DC generator at 39. The two generators would normally be initiated and the entire motor started by means of a starting motor and a storage battery. Such conventional starting system is illustrated in the lower right hand corner.

A distributor 40 is diagrammatically illustrated, such distributor having an external distribution ring split into two sections 41 and 42, each covering slightly less than 180 degrees. Two diametrically opposed contact brushes or spring-urged contact points rotate within the distributor, one of the arms 43 being shown beginning its contact with split ring section 41, whereas the other arm 52 is shown beginning a downstroke in contact with ring 42. It will be noticed that arm 44 is constantly supplied with alternating current from the generator 38 whereas arm 43 is grounded and connected to the negative side of DC generator 39. Distributor segment 41 is associated with expansion chamber A

whereas segment 42 of the distributor is associated with the variable volume chamber B. Rotation of the contact arms in the distributor is in timed relation with the cycles of expansion and contraction of the variable volume chambers; since the power sources are of two cycle character, one complete rotation of the distributor contact arms corresponds to a full cycle of a chamber.

In the position shown in Fig. 4, it will be noticed that the contact arm 43 is now supplying negative (ground) to segment 41which is connected by line 44 through a condenser 45 to the cell 21 and one of the electrodes 23' of chamber A which is at the beginning stage of the upstroke. Simultaneously however, contact arm 52 is being supplied from the positive output of the generator 38 with alternating current through segment 42 which is now transmitted by line 54 through a condenser 55 to the corresponding cell 21 and electrode 23' of variable chamber B which is at the beginning of its down or expansion stroke. Simultaneously, branch line 54' (also connected to distributor ring 42 and fed with alternating current), passes through a voltage regulator and actuates an electromagnetic coil 56 of a double pole, single throw, relay switch indicated at 57, whereby switch bar portion 58 assumes the full line position, switch bar portion 58 assumes the full line position, switch bar 58 being connected at its inner end by line 59 to the negative side of the AC generator and making contact at terminal 60, connects such negative side by line 61 to the opposite electrode 23 and cell 20 of expansion chamber B.

Simultaneously, while the double pole, single throw relay switch is in full line position, line 68 is supplying positive direct current to the inner end of arm 58' of the switch which is in contact with terminal 72, the opposite end of this conductor being connected as at 70 to line 71 which conveys this direct positive current to actuating cell 20 and terminal 23 within variable volume chamber A.

At this point it is to be noted that during the expansion stroke in chamber B, actuating cell 21 is supplied with positive alternating current while the opposing activating cell 20 is connected to ground or negative terminal. Similarly, the two electrodes 23 and 23' in variable chamber B are supplied with negative and positive alternating current. However, during the upstroke or contraction of chamber A, which occurs concurrently, the system provides positive DC to actuating cell 20 and terminal 23 of the electrode whereas negative DC is supplied to the opposing activating cell 21 and the opposite terminal of the electrode 23'.

When DC arm 43 completes its sweep of segment 41 and contacts segment 42, chamber B starts its upward or contraction stroke. Simultaneously arm 52 starts its sweep of segment 41 and chamber A starts its expansion stroke. During these strokes, the switch 57 is in dotted line position (coil 56' energized through line 44'). In chamber A actuating cell 20 will be supplied with negative alternating current or ground, whereas the opposite actuating cell 21 will be supplied with ungrounded alternating current. In chamber B (now contracting) cell 20 will be supplied with positive DC and cell 21 with negative DC.

The two cells in a given chamber are therefore sequentially supplied with electrical current differing in potential and polarity, only one cell of a pair being supplied with positive current at a given instant. Supply of electrical current (from an external source) to the two electrodes in a given chamber conforms to the same rule. Such sequential supply controls expansion and contraction of the gaseous environment in the chambers.

The alternating current supply may vary from between about 28 to 500 volts depending upon the volume of each of the chambers; a direct current supply at from approximately 24 to 100 volts is adequate. The presence of capacitors 45 and 55 in lines 44 and 54 is required and will allow the passage of direct current since these currents are in effect of a pulsating type.

Attention is called to the fact that the glow coil 34 is located near the top extremities of the collector plate between the electrodes. The function of the glow coil is to initially preheat the gas mixture of

the chamber and the water therein during start-up. Although it is connected to the electrodes, from the bottom of the stroke to the top of the stroke during each cycle, it cannot glow during operation because of the bimetallic relay or switch 34' referred to hereinabove; therefore the coil will merely short the electrodes without benefit of glow in subsequent phases and will complete the circuit between the condenser electrodes, permitting the collector plate 32 between the electrodes to receive its charge.

During the up or contraction stroke, the electrodes are operating with DC and the collector plate 32 is building up its charge potential. The charging of the collector ceases at the beginning of the expansion stroke. During the downstroke, the electrodes receive AC and, due to this change in the type of electrical impulse and variation in voltage, the collector plate will short out with high voltage both through the insulators and between the electrodes. This discharge is given impetus by the moist steam which results during the cooling phase of the superheated dry steam from the initiation to the completion of the up or contraction stroke. When the chamber is in its contracted phase, the charge on the condenser is negative and the condenser has excess electrons at the moment of electric discharge. The negative charge condenser attracts of absorbs the positive molecules. These positive charges are moving toward the collector plate and the negative charges will be repelled while the positive atoms, which are deficient in electrons, will reach the collector plate and pick up the needed electrons form the plate. Moreover, the collector plate, because of its charge, creates an electric barrier; the charge on the collector plate is negative and has excess electrons at the moment of electrical discharge in the gap between terminals 31 of the electrodes and while the chamber is in its contracted phase. This negative charge on the collector attracts or absorbs positive molecules which are moving toward the collector, while the negative molecules are repelled. The positive atoms which are deficient in electrons will reach the collector plate and will pick up the needed electrons from the plate. During the expansion of the chamber, the positive and negative ions which are created by the gamma ray of the cathode will increase in mass instantaneously by the assimilation of the electrons supplied by the generator, whereby the gross pressure resultant within the chamber is increased directly and proportionately. The collision of gas atoms and electrons and molecules results in a high heat coefficient with resultant gas expansion. The amount of heat depends on the charge of the anode and cathode and the charge of the collector plate. The rays from the cathode (phosphorus may be the element) generally travel in a straight vector but can be deflected by an electromagnetic field. Within the chamber, these cathode ray particles will be directed downward toward the bottom of the cylinder during the expansion stroke from the time that the collector plate discharges its static potential previously acquired and from the discharge between the points of the electrodes which are positioned close to the bottom of the cylinder and complete the electric circuit. Owing to the presence of ionized gases and water vapor, the electromagnetic field which is created this way between the electrodes will be the force phenomenon which will attract the otherwise directional migrations of the cathode ray particles toward the bottom of the chamber. Simultaneously the collector plates create an electric barrier above such discharge and field, facilitating the downward deflection of the rays in the direction of movement of the bottom wall of the chamber.

In general there are two forces working in the cylinder, one force is the resultant of the anode, cathode and collector plate short-circuiting and changing the moist steam to a superheated dry steam. The second force is a resultant due to the high temperature/pressure coefficient of the gases and the directional electrons emanating from the rubidium and phosphorus for example, whose velocity is increased by the electrical impulses to which they are subjected. These free electrons are absorbed by the gases which are capable of assimilating these electrons due to their special nature. The collector plate located between the two cells also attracts some free electrons and adds them to its charge. When rubidium is in one of the cells, it radiates gamma rays which have no negative or positive charge and will not be absorbed by the gases nor the electric components of the cylinder but will cause structural changes in the molecules of the argon which has been subjected to the radiation from the other cell containing phosphorus, and which has been subjected to the supplied AC and DC. The working capacity and the life expectancy of the environment is dependent upon the percentage

of the various gases in the mixture, the percentage of water and the quantity and character of the elements in the two activating cells. The causes of the energy produced in this environment are eclectic and are a function of the molecular structures and atomic substructures connected with and altered by the electrons migrating and the molecules of hydrogen and oxygen which are sequentially bound and released due to the interplay of the elements and electrical forces interacting upon the system.

During operation, a certain amount of fluorescence and luminosity is highly desirable within the chambers and in order to stimulate such fluorescence and the emanations from the activating cells, these cells are sequentially supplied with current as previously stated. Electron emissions are therefore stimulated or induced and the electrons from one cell are attracted toward the other cell, the flow of these electrons resulting in electric current. The strength or potential of this current can be increased by the presence of the noble gases in the chamber as well as their quantity and pressure within the chamber. The presence of these gases aids the flow of the current EMF) because the flow of electrons from the cathode will be accelerated sufficiently so that collision of the electrons with the gas molecules and atoms occurs, causing fission of the neutral gas atoms and particles permitting them to carry a greater electrical charge (this may be called collision ionization). The cathode also emits beta rays and gamma rays. The gamma rays will induce certain materials to radiate fluorescent light and this has a special function at the expanded position of the chamber and aid by cooling the walls of the cylinders. Heat is removed from the cylinder walls because elementary particles are retrieved from the walls, such particles having previously emanated from the cathode rays.

Within the confines of the chamber, the gas molecules collide with the walls and other gas molecules and change direction; oppositely moving positive and negative molecules attract each other but the neutral molecules will not be able to participate in this current. To increase the number of charged particles which are responsible for the state which causes electrical power, we increase the speed so as to reduce the number of recombinations which tends to result in neutral equilibrium. If the molecular velocity is sufficient, it will tend to inhibit reassociation of gas atoms to reduce the electric ionic charges available to support an electric current and if we sustain sufficient atomic velocity of the gases, we tend to increase the electric the electric current potential. By further increasing the power source of motion, the charged molecules will speed up so fast that collisions with neutral molecules will explode them to nascent particles which are capable of taking charges and the forces acting upon them will begin to move the charged particles in positive and negative directions and into further collisions where they create new charge-carrying particles. X-rays created by the cathode knock out or dislodge atoms from the xenon in the chamber and atoms that have lost one or more of their electrons will suffer an electron deficiency. By reason of this, the atom which has lost its electron will have a positive electric charge and the free electrons will be picked up by the argon, neon and krypton isotopes. The gas which accepts the free electrons will have a negative charge. The xenon will replace its lost electrons form electrons assimilated from the collector plate surplus. The charge on the collector is negative as previously stated.

The element in one of the cells should be capable of emanating alpha ray particles so as to produce a fluorescence or luminescence which encourages beta and gamma propagation. Phosphorus, mesothorium, or radium can be so employed, the latter elements permitting the utilization of additional charges. The alpha ray particles collide with the zinc sulfide crystals on the collection plate. Moreover, the aforesaid elements also create ultraviolet rays which also force electrons to emanate from the zinc, aluminum, or other metals employed for the housings of the cells. The photons thus obtained by the luminescence are of value in that their removal from the metal walls assists in cooling.

During the upstroke or contraction, AC is withdrawn and DC is supplied to the cells and electrodes from the distributor.

The "Neutral Electrons" which are forced to explode, loose their charges and will again become "Neutral Electrons" since the collector will retrieve their charges (The theory of "Neutral Electrons" evolving suggests that electrons with a given mass when carrying a charge of electricity are in negative phase but may be stripped of their charge and revert to a positive condition devoid of the electrical charge normally attributed to them). The xenon is in need of charges and will reassimilate its lost electrons from the argon and neon. The huge electron surplus originally admitted via the cathode will migrate through the closed circuit of the flow coil shunt or relay and will drain excess electrons to the generator which is extraneous to the internal electron system. A collector plate or electron sink between the electrodes and the distributor modulates the exodus of electron surpluses. The quantity of electrons which are returned by the distributor at the top of the stroke, combined with the low EMF current from the generator results in a very powerful charge to the previously charged collector plate inside the cylinder, resulting in a high magnitude explosive discharge at the top of the stroke. The radiation of the phosphorus (or alternates) placed in the cathode will be reduced, almost stopped (with the exception of the gamma ray) because the current of electrons will now have opposite direction (polarity) which will result in opposite charge, owing to the change of polarity mentioned above. The same thing will happen with the rubidium in the anode, and even its radiating capacity will be intensified to a certain degree, with the aid of the charge-laden electron current. The charge-laden electron stream entering the anode from the generator will have a negative charge and will pick up the particle and electrons which were eliminated by the gases and will circulate them from the anode to the cathode. The same will happen with the electrons and particles which will be released from the cylinder wall and which will result with the aid of water vapor in a diminution or loss of sensible heat. The cylinder wall will cool and it will cool the hot gases and the high-pressure dry water steam. Small amounts of water vapor will even condense on the cylinder wall. Total and complete condensation of the water and cooling cannot occur because within a fraction of a second, the heating cycle will commence. The rubidium rays will be (alpha and gamma) intensified during the reversed polarity upstroke cycle. At the moment of the next discharge between gap points of the electrode, 80 to 85% of the water will become moist steam and 15 to 20% will condense to liquid water. The resultant residue will settle on the cylinder wall and will be chemically harmless, because it consists only of the atrophied electrons of the electricity.

A complete 4-cylinder engine made in accordance with this invention wherein the movable wall portions of the four variable volume chambers were connected to a crank shaft of an engine so as to convert the linear reciprocation of such wall portions into rotary motion was constructed and successfully operated and demonstrated. Each of the cylinders had a gross volume of 8-1/2 cubic inches and a net displacement of 5.5 cubic inches. The activating cells in each cylinder contained 1 gram of rubidium and 2 grams of phosphorus respectively, and were made in accordance with the specific example given hereinbefore. The environment within each chamber had the composition given hereinbefore consisting of de-oxygenated water, xenon, neon, argon and chlorine. The precharging method hereinbefore disclosed was employed. The electrical energy sources utilized were direct current at 27 volts and alternating current at 42 volts.

Starting of the engine occurred after 4 to 6 revolutions of the engine by a conventional starting motor. The timing of the distributor during the operation of the engine was advanced to initiate changes in type of current supplied to the activating cells a few degrees in advance of top dead center. The engine accelerated rapidly (to about 1500 rpm in less than one second) and then at a somewhat slower rate to between 2500 and 3000 rpm (attained in less than 2 seconds from start). Although electron reactions involving temperatures on the order of 2000-3000 degrees occur at the peak in the expansion portion of the cycle, the walls of the engine showed a temperature of 75-80 degrees at the end of protracted runs. No cooling water was employed; a circulating oil system injected some oil through the wall of the block into the outer grooves of the movable wall portion of each chamber cylinder. Momentary pressures of between 700 and 800 psi appear to have been developed within the chambers. The engine was quiet during operation. A power output of about 70 hp was apparently produced at 2500 rpm

Rectilinear motion of the movable wall portion of the variable volume chamber or chambers (which is obtained in accordance with the ode of operation described hereinabove) may be changed or translated into rotary motion, intermittent motion or rectilinear motion or practically uniform velocity by the use of many different types of mechanisms which are within the skill of mechanical engineers and designers. The shafts, arms, rods, linkages or other force transfer means energized by the power source of the present invention may be used for the manipulation, adjustment, positioning, lifting, etc. of any desired device or element. The regenerative two-cycle character of the example given herein, its compactness, ability to provide high energy output at relatively low rpm (1500-3600), the simple construction (no valves or valve actuating mechanisms, cooling systems, air supply or superchargers, no exhaust or muffler) and light weight, as well as the ability of the system to operate for thousands of hours without refueling or recharging, provides solutions to present and future problems involving the generation and utilization of power in isolated locations and under exotic conditions.

I claim: [Claims not included here]

US Patent # 3,680,431
(August 1,1972)

"Method & Means For Generating Explosive Forces"

Josef Papp

Abstract ~

A method of generating explosive forces involving the triggering and utilization of potential energy of atoms and various forms of radiation and emanation; the provision of environmental means in which the reaction can be initiated by electrical means. The utilization of elements of relatively low atomic number, such as the noble gases, chlorine and other elements and their isotopes whose atoms to not have their outer quantum levels completely satisfied with orbital electrons, in the production of explosive reactions in which fission, spallation, transfer reactions and cascade effects appear to be utilized. The utilization of elements having the property of emitting electrons, alpha, gamma and beta radiation, x-rays and ultraviolet emanations for the purpose of triggering the reactions.

FIG. 1.

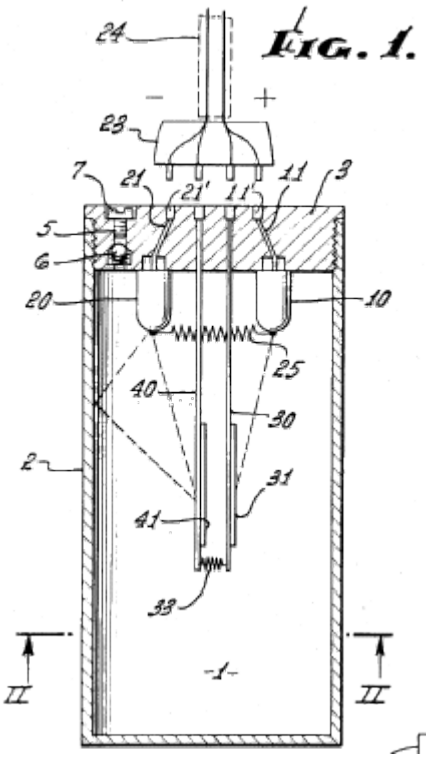
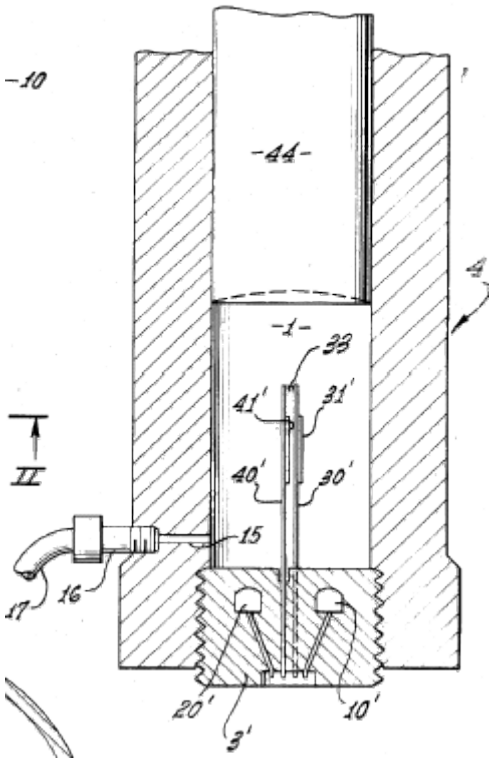

24
23
7
21
21'
11'
11
3
5
6
20
10
25
40
30
2
31
41
33
II
II
-1-

FIG. 3.


10
-44-
4
-1-
33
41'
31'
II
40'
30'
15
16
17
20'
10'
3'

US Patent # 4,428,193
(January 31, 1984)

Inert Gas Fuel, Fuel Prepartion Apparatus, & System For Extracting Useful Work From The Fuel

Joseph Papp

Abstract ~

An inert gas fuel consisting essentially of a precise, homogeneous mixture of helium, neon, argon, krypton and xenon. Apparatus for preparing the fuel includes a mixing chamber, tubing to allow movement of each inert gas into and through the various stages of the apparatus, a plurality of electric coils for producing magnetic fields, an ion gauge, ionizers, cathode ray tubes, filters, a polarizer and a high frequency generator. An engine for extracting useful work from the fuel has at least two closed cylinders for fuel, each cylinder being defined by a head and a piston. A plurality of electrodes extend into each chamber, some containing low level radioactive material. The head has a generally concave depression facing a generally semi-toroidal depression in the surface of the piston. The piston is axially movable with respect to the head from a first position to a second position and back, which linear motion is converted to rotary motion by a crankshaft. The engine's electrical system includes coils and condensers which circle each cylinder, an electric generator, and circuitry for controlling the flow of current within the system.

Inventors: Papp; Joseph (Santa Ana, CA)
Assignee: Papp International Incorporated (Lincoln, NE)
Appl. No.: 184405 Filed: September 4, 1980
Current U.S. Class: 60/509; 60/516; 60/531; 60/721; 123/1A; 123/536; 376/146; 376/317; 376/318; 976/DIG1
Intern'l Class: F01K 025/08
Field of Search: 376/318,317,346 123/1 A,198 A,536 60/509,516,531,513,721
Primary Examiner: Cangialosi; Sal
Attorney, Agent or Firm: Senniger, Powers, Leavitt and Roedel

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US Patent # 3,386,245 ~ Jun., 1968; Gamage 376/318.
US Patent # 3,549,490 ~ Jul., 1970; Moore 376/317.
US Patent # 3,670,494 ~ Jun., 1972; Papp 60/23.
US Patent # 3,680,431 ~ Aug., 1972; Papp 89/7.
US Patent # 3,977,191 ~ Aug., 1976; Britt 60/509.
US Patent # 4,023,065 ~ May., 1977; Koloc 376/146.
US Patent # 4,081,712 ~ Mar., 1978; Bode, et al. 313/226.

Foreign Patent Documents
DE 2,056,199 ~ May 1972 (Cl. 376/318).

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Essentials of Astronomy, (7/68) Motz, et al., p. 394.
Condensed Chemical Dictionary, 9th Ed, Hawley Ed, VanNostrand Reinhold Co., New York pp. 431 and 621.
New Scientist (5/24/79) pp. 626-630.

Description

Background of the Invention ~

This invention relates to closed reciprocating engines, i.e., ones which do not require an air supply and do not emit exhaust gases, and more particularly to such engines which use inert gases as fuel. It also concerns such inert gas fuels and apparatus for preparing same.

Currently available internal combustion engines suffer from several disadvantages. They are inefficient in their utilization of the energy present in their fuels. The fuel itself is generally a petroleum derivative with an ever-increasing price and sometimes limited availability. And the burning of such fuel normally results in pollutants which are emitted into the atmosphere. These engines require oxygen and, therefore, are particularly unsuitable in environments, such as underwater or outer space, in which gaseous oxygen is relatively unavailable. Present internal combustion engines are, furthermore, relatively complex with a great number of moving parts. Larger units, such as fossil-fuel electric power plants, escape some of the disadvantages of the present internal combustion engine, but not, inter alia, those of pollution, price of fuel and availability of fuel.

Several alternative energy sources have been proposed, such as the sun (through direct solar power devices), nuclear fission and nuclear fusion. But because of lack of public acceptance, cost, other pollutants, technical problems, and/or lack of development, these sources have not wholly solved the problem.

Moreover, the preparation of fuel for nuclear fission and nuclear fusion reactors has heretofore been a complicated process requiring expensive apparatus.

Summary of the Invnetion ~

Among the several objects of the present invention may be noted the provision of an engine which is efficient; the provision of an engine which does not require frequent refueling; the provision of an engine which develops no pollutants in operation; the provision of an engine which is particularly suited for use in environments devoid of free oxygen; the provision of an engine which requires no oxygen in operation; the provision of an engine having a relatively small number of moving parts; the provision of an engine of a relatively simple construction; the provision of an engine which can be used in light and heavy-duty applications; the provision of an engine which is relatively inexpensive to make and operate; the provision of a fuel which uses widely available components; the provision of a fuel which is relatively inexpensive; the provision of a fuel which is not a petroleum derivative; the provision of relatively simple and inexpensive apparatus for preparing inert gases for use as a fuel; the provision of such apparatus which mixes inert gases in precise, predetermined ratios; and the provision of such apparatus which eliminates contaminants from the inert gas mixture. Other objects and features will be in part apparent and in part pointed out hereinafter.

Briefly, in one aspect the engine of the present invention includes a head having a generally concave depression therein, the head defining one end of a chamber, a piston having a generally semitoroidal depression in its upper surface, the piston defining the other end of the chamber, and a plurality of electrodes extending into the chamber for exciting and igniting the working fluid. The piston is axially movable with respect to the head from a first position to a second position and back, the volume of the chamber being determined by the position of the piston relative to the head.

In another aspect, the engine of the present invention includes a head which defines one end of the chamber, a piston which defines the other end of the chamber, a plurality of magnetic coils wound around the chamber for generating magnetic fields inside the chamber, and at least four electrodes extending into the chamber for exciting and igniting the working fluid. The piston is axially movable with respect to the head from a first position to a second position and back, the volume of the chamber being determined by the position of the piston relative to the head. The magnetic coils are generally coaxial with the chamber. The electrodes are generally equidistantly spaced from the axis of the chamber and are each disposed generally 90.degree. from the adjacent electrodes. Lines between opposed pairs of electrodes intersect generally on the axis of the chamber to define a focal point.

In a further aspect, the engine of the present invention includes a head which defines one end of a chamber, a piston which defines the other end of the chamber, at least two electric coils wound around the chamber for generating magnetic fields inside the chamber, and a plurality of electrodes extending into the chamber for exciting and igniting the working fluid. The piston is axially movable with respect to the head from a first position to a second position and back, the volume of the chamber being determined by the position of the piston relative to the head. The electric coils are generally coaxial with the chamber. And the working fluid includes a mixture of inert gases.

The apparatus of the present invention for preparing a mixture of inert gases for use as a fuel includes a chamber, electric coils for generating predetermined magnetic fields inside the chamber, tubing adapted to be connected to sources of preselected inert gases for flow of the gases from the sources to the chamber, and ionizers for ionizing the gases.

The fuel of the present invention includes a mixture of inert gases including approximately 36% helium, approximately 26% neon, approximately 17% argon, approximately 13% krypton, and approximately 8% xenon by volume .

Brief Description of the Drawings ~

FIG. 1 is a side elevation of an engine of this invention;

FIG. 1

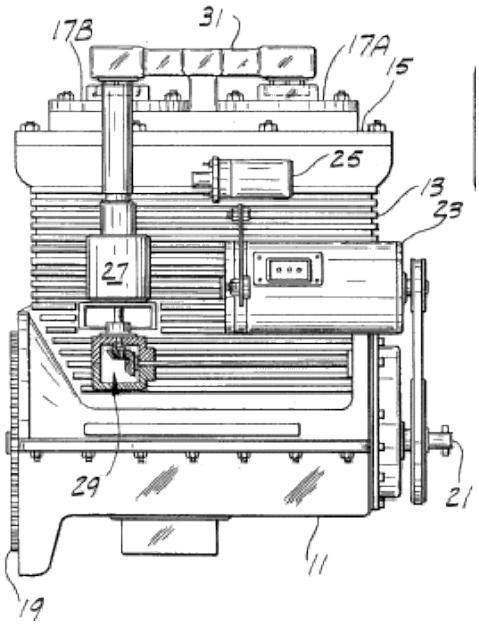


FIG. 2 is a rear elevation of an engine of this invention;

FIG. 2

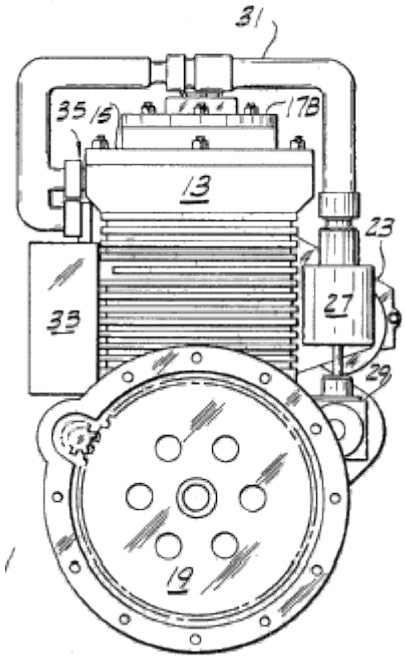


FIG. 3 is a top plan of an engine of this invention;

FIG. 3

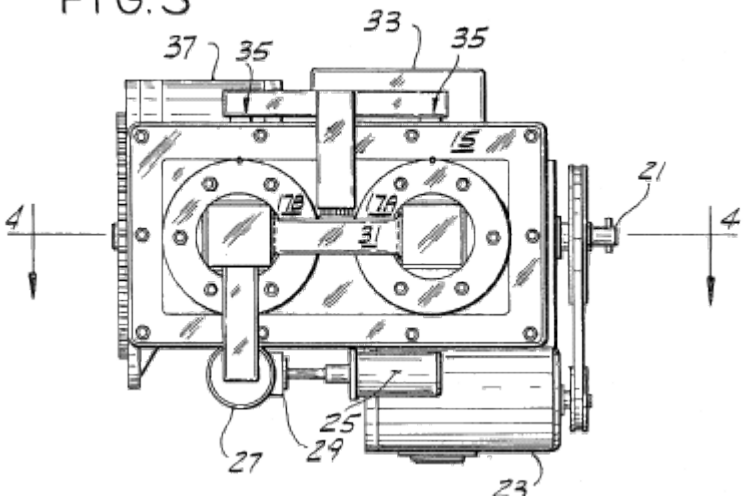


FIG. 4 is a cross-sectional view generally along line 4--4 of FIG. 3 of an engine of this invention;

FIG. 4

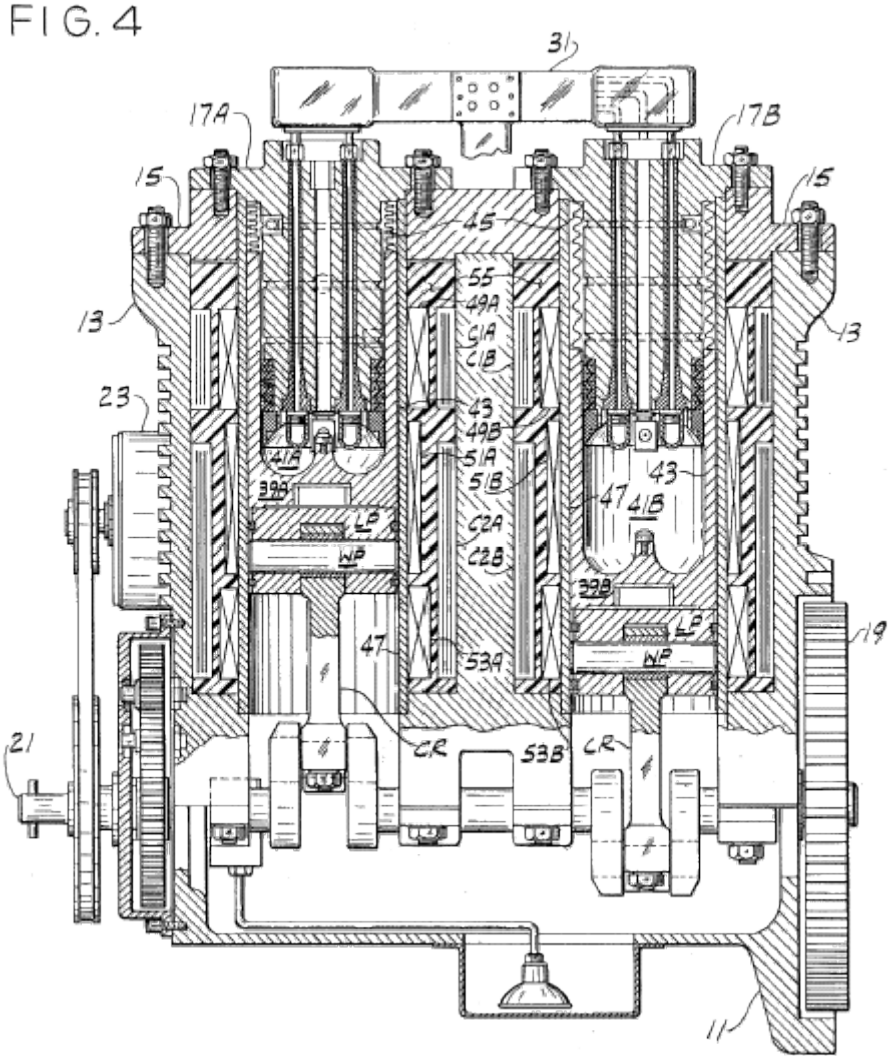


FIG. 5 is a cross-sectional view of a cylinder of an engine of this invention;

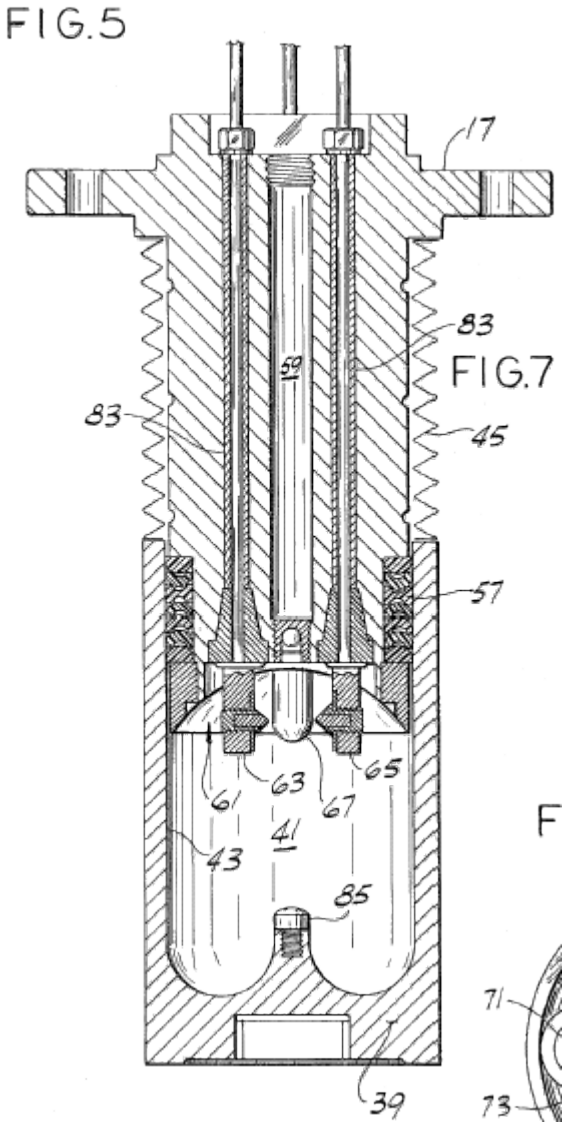


FIG. 6 is a plan of the base of a cylinder head of an engine of this invention;

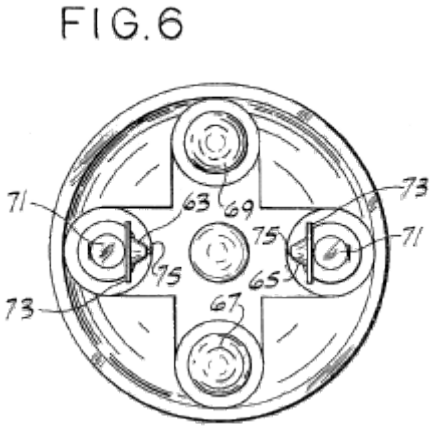


FIG. 7 is an elevation of an electrode rod of an engine of this invention;

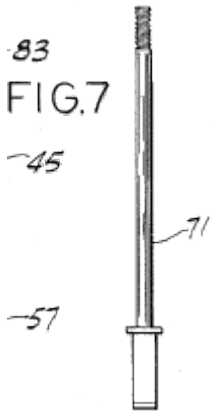


FIG. 8 is an elevation, with parts broken away, of one type of electrode used in an engine of this invention;

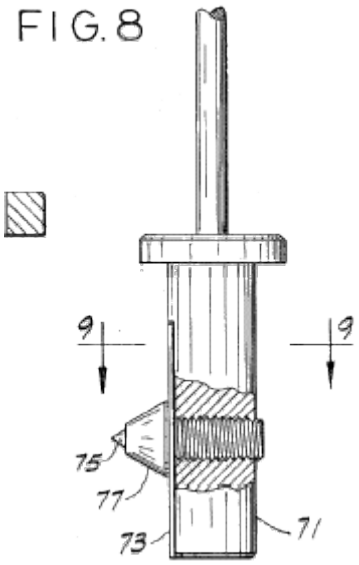


FIG. 9 is a view taken generally along line 9--9 of FIG. 8;

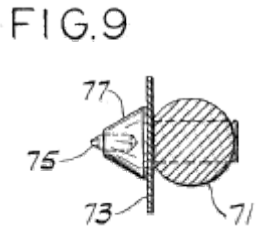


FIG. 10 is a cross-sectional view of a second type of electrode used in an engine of this invention;

FIG.10

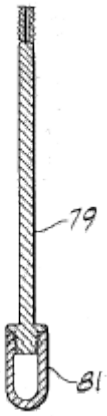


FIG. 11 is a cross-sectional view similar to FIG. 5 showing the piston in its uppermost position;

FIG.11

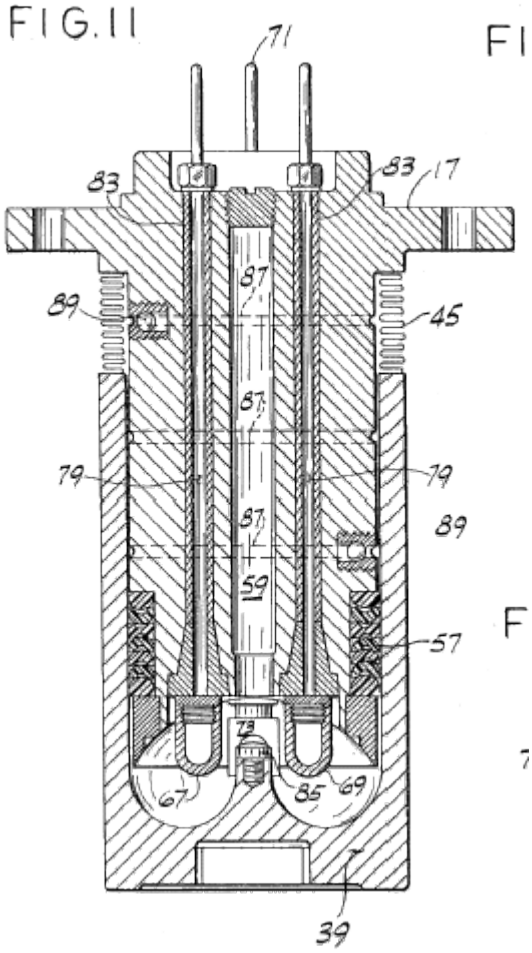


FIG. 12 is a cross-sectional view similar to FIG. 5 showing an alternative cylinder used in an engine of this invention;

FIG.12

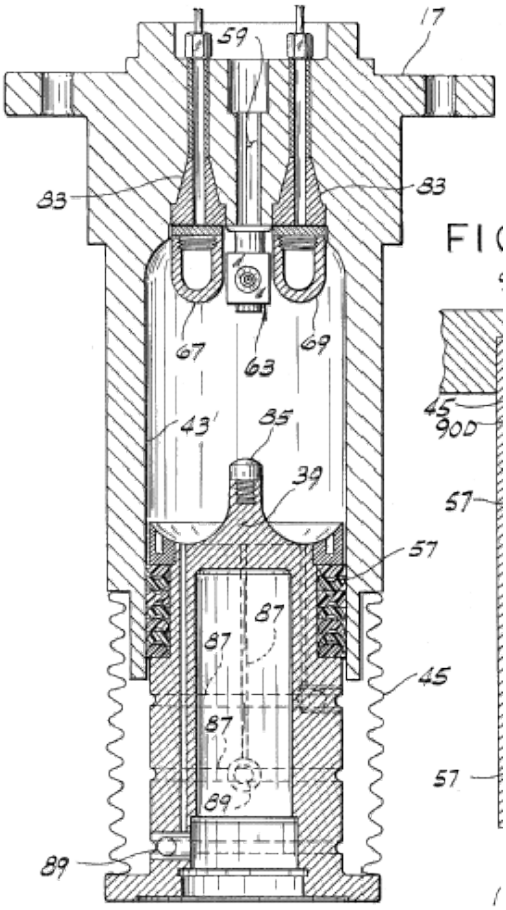
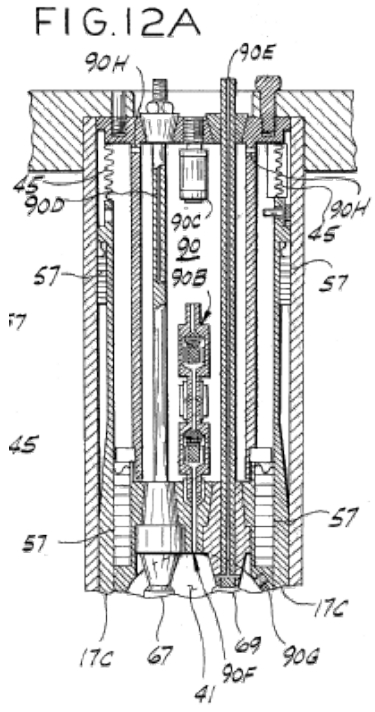


FIG. 12A is a cross-sectional view similar to FIGS. 5 and 12, but on a reduced scale and with parts broken away, showing an additional embodiment of a cylinder head used in an engine of this invention;

FIG.12A



FIGS. 13A and 13B are schematic diagrams of the electrical circuitry for an engine of this invention;

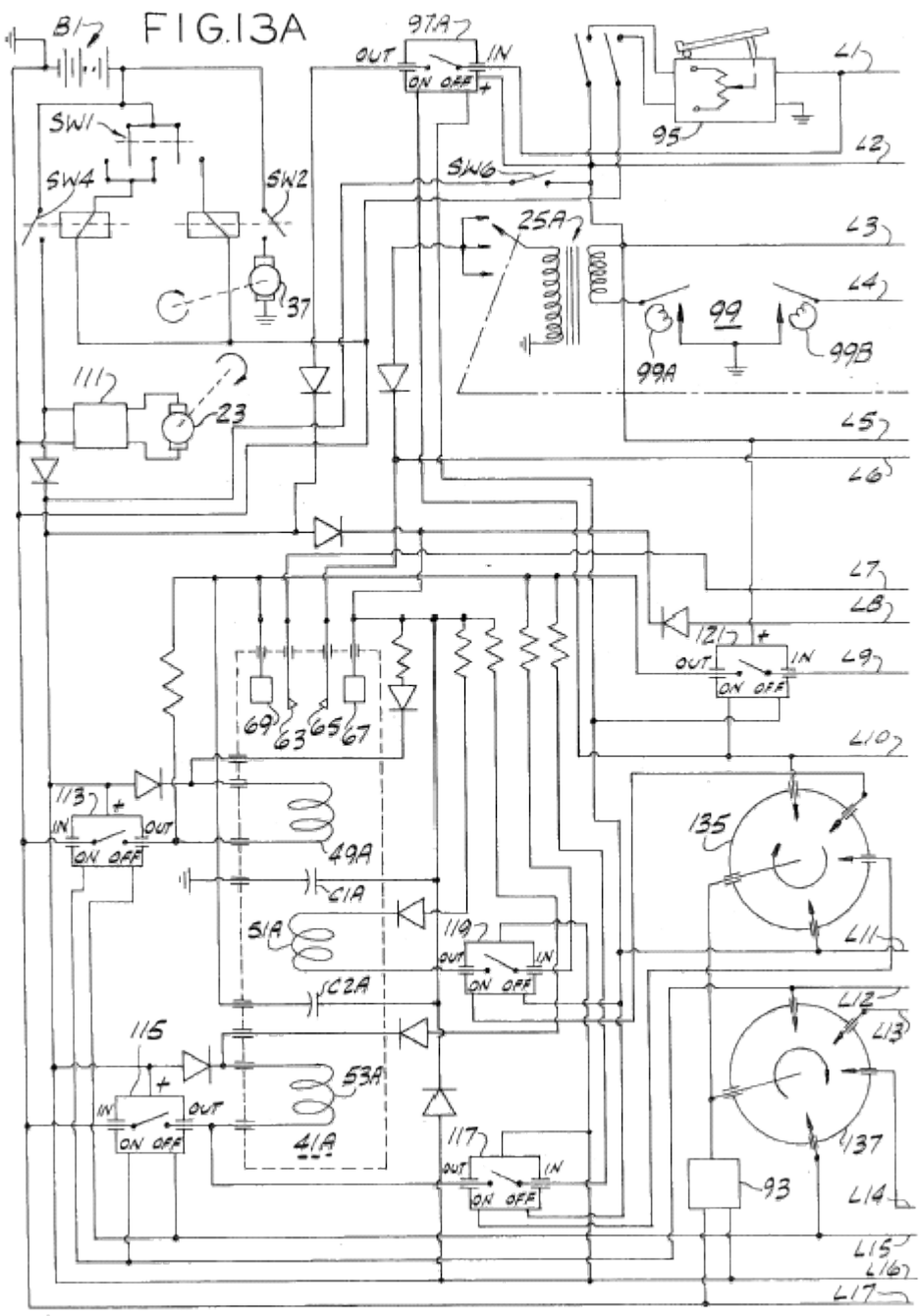


FIG. 13B

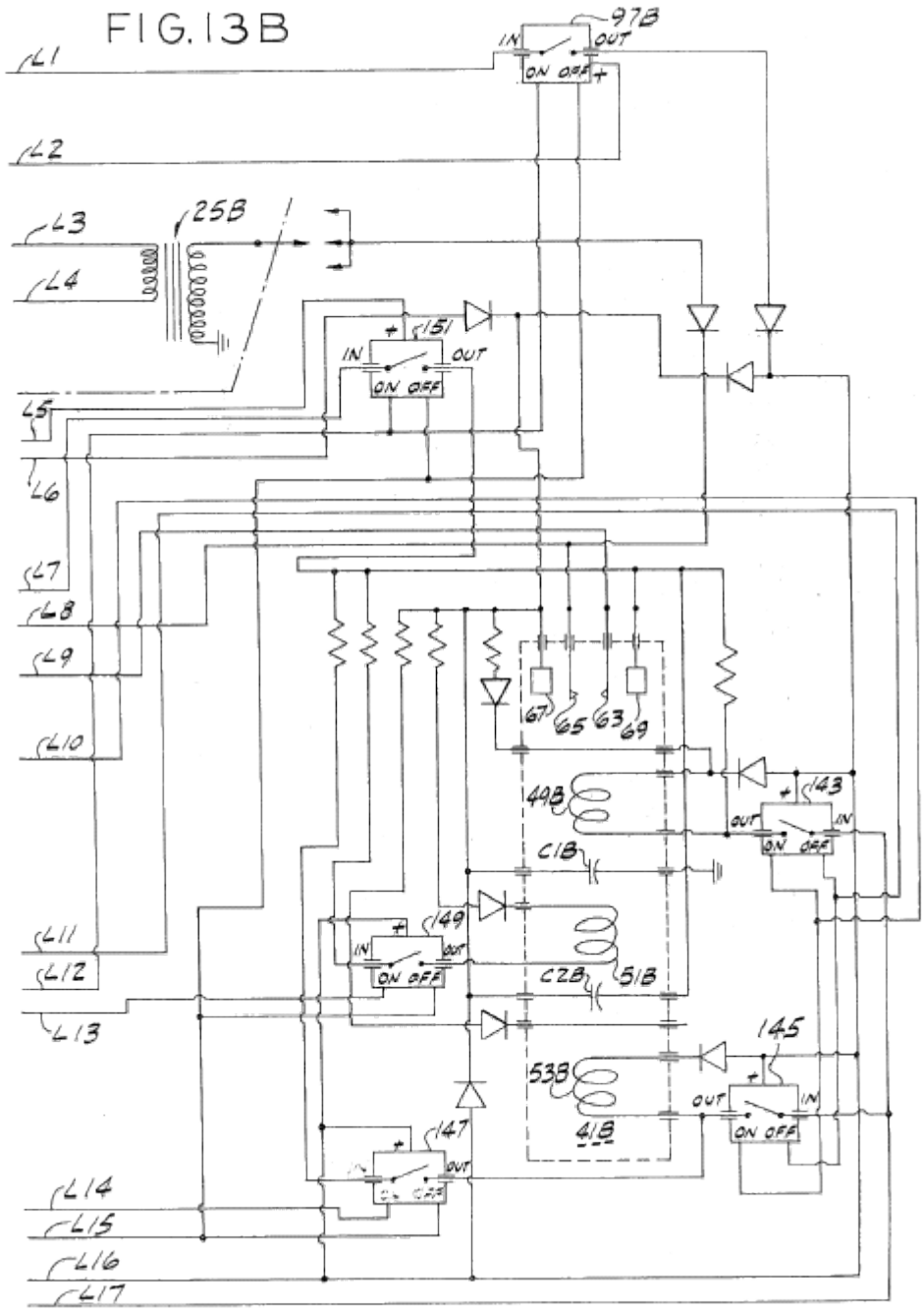

L1
L2
L3
L4
L5
L6
L7
L8
L9
L10
L11
L12
L13
L14
L15
L16
L17
97B
IN
OUT
ON OFF
25B
151
67
65
63
69
143
40B
C1B
149
C2B
51B
145
53B
41B
147
C3B

FIG. 14 is a schematic diagram of an alternative high-voltage ignition system for an engine of this invention;

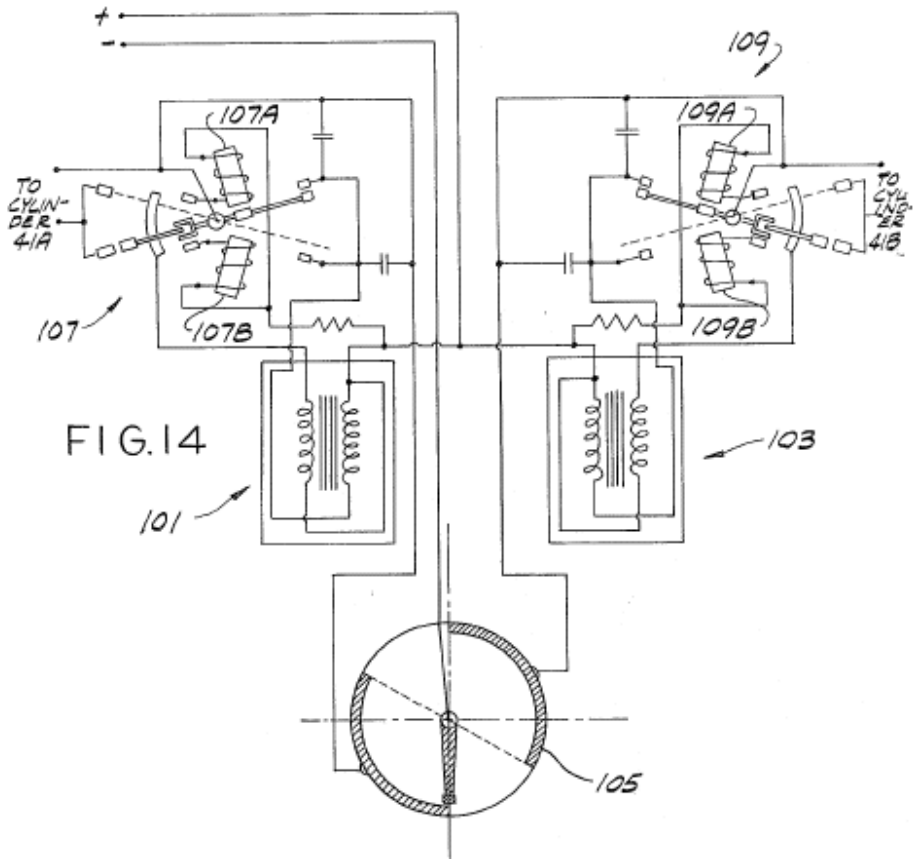


FIG. 14

FIG. 15 is a schematic diagram of an electronic switching unit for an engine of this invention;

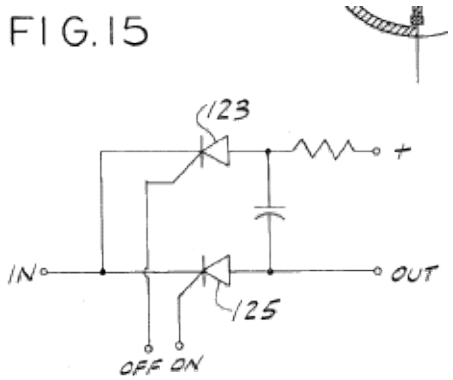


FIG. 15

FIG. 16 is a schematic diagram of a regulator/electronic switching unit for an engine of this invention;

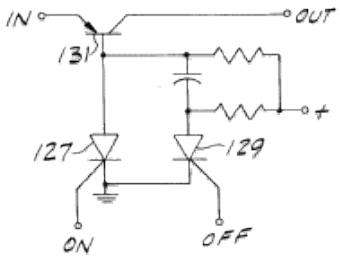
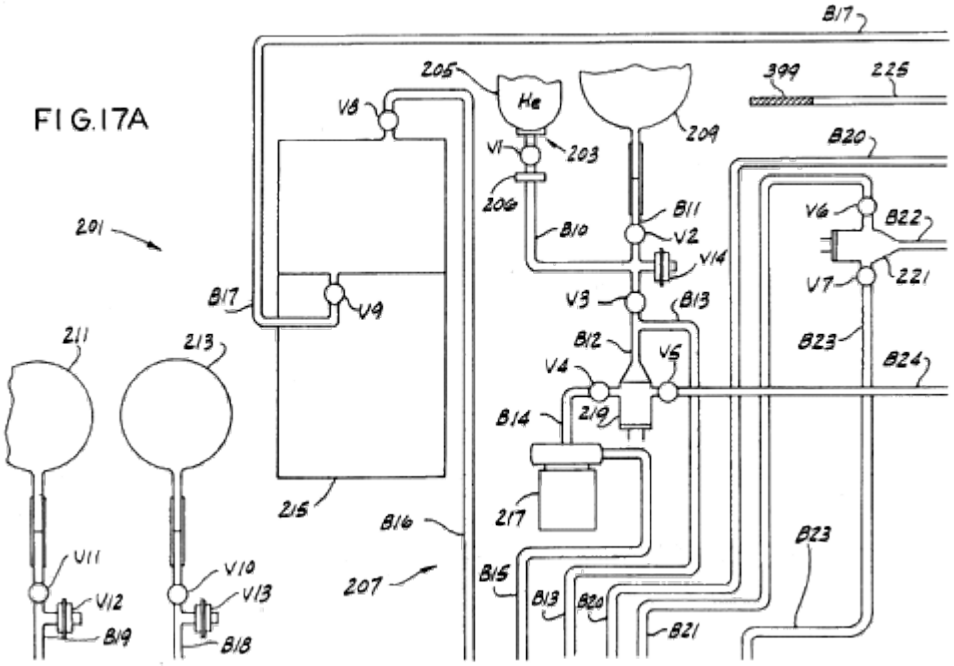
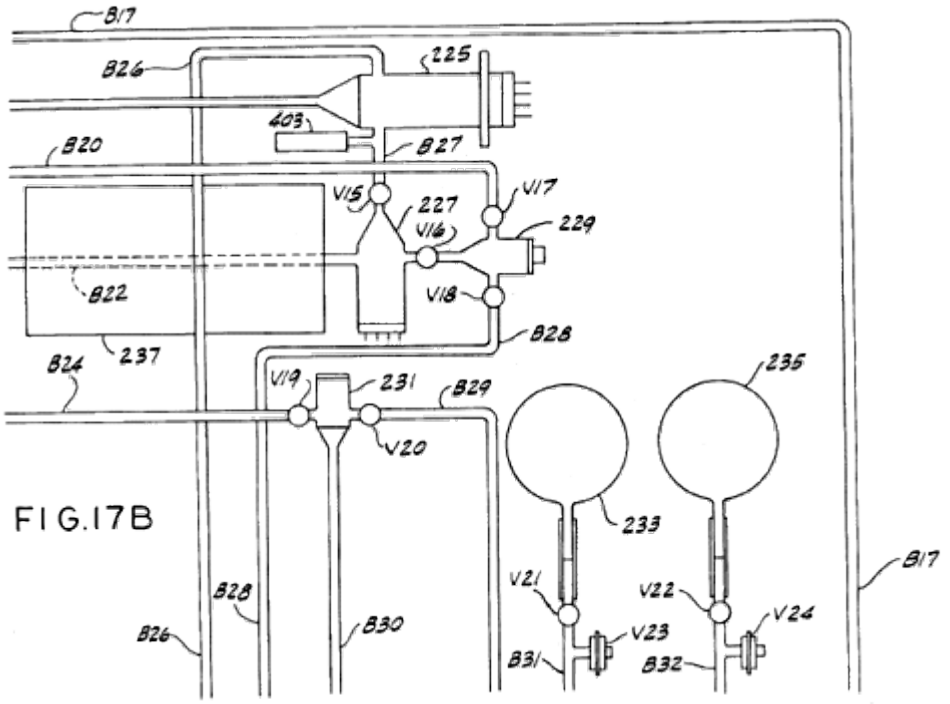
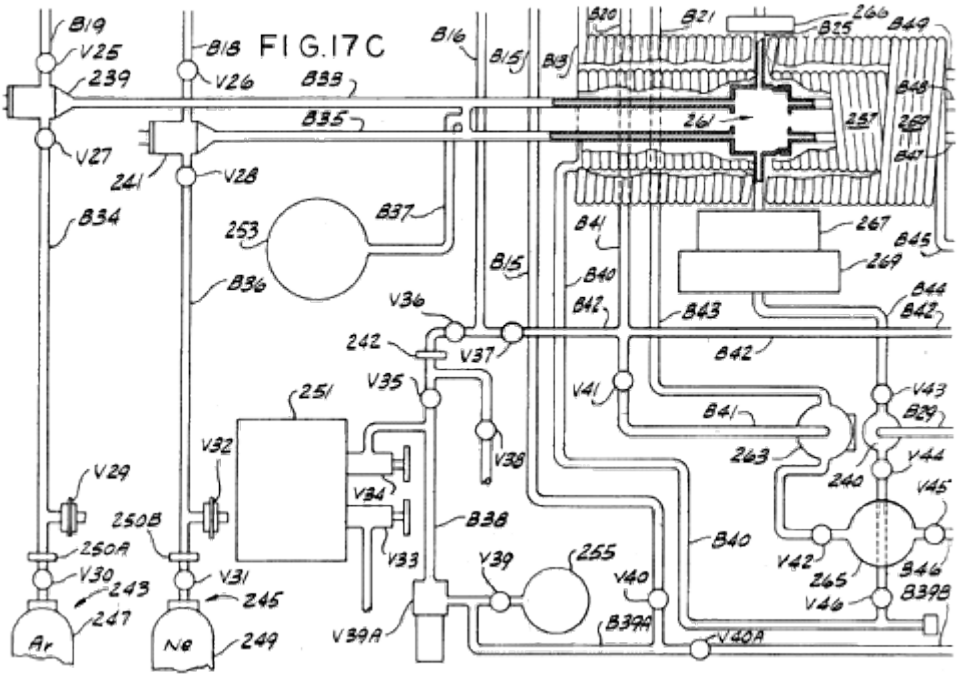


FIG. 16

FIGS. 17A-17D are schematic diagrams of a fuel mixer of the present invention;







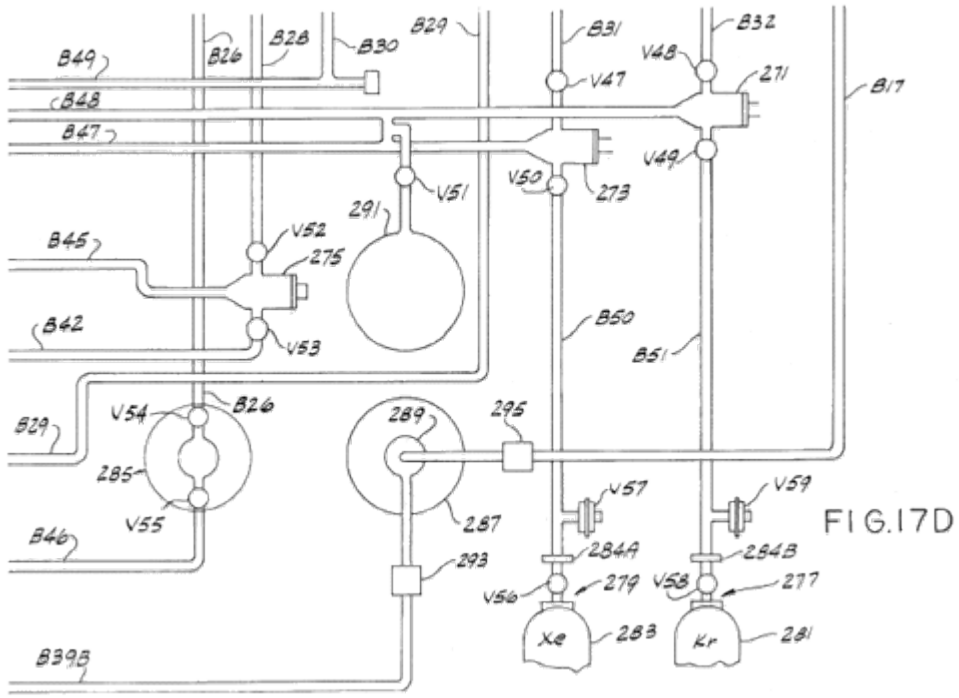
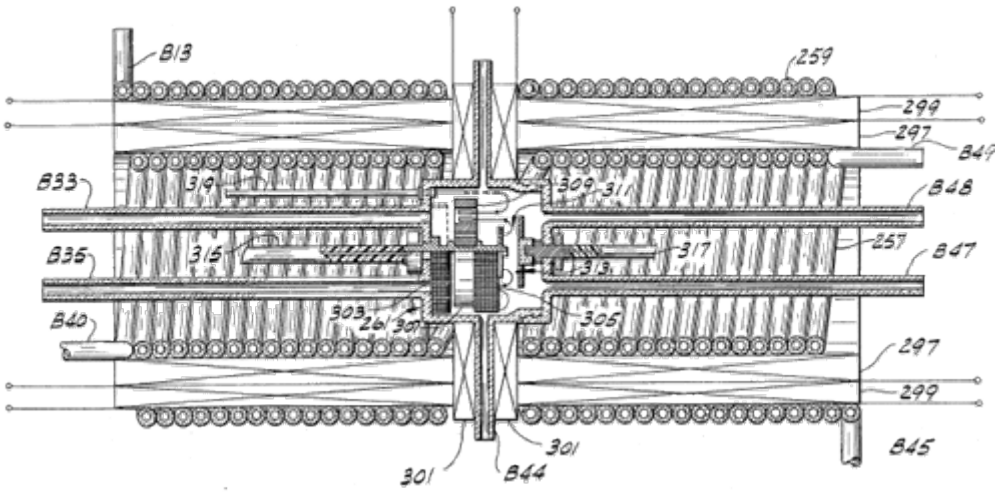


FIG.17C

FIG.17D

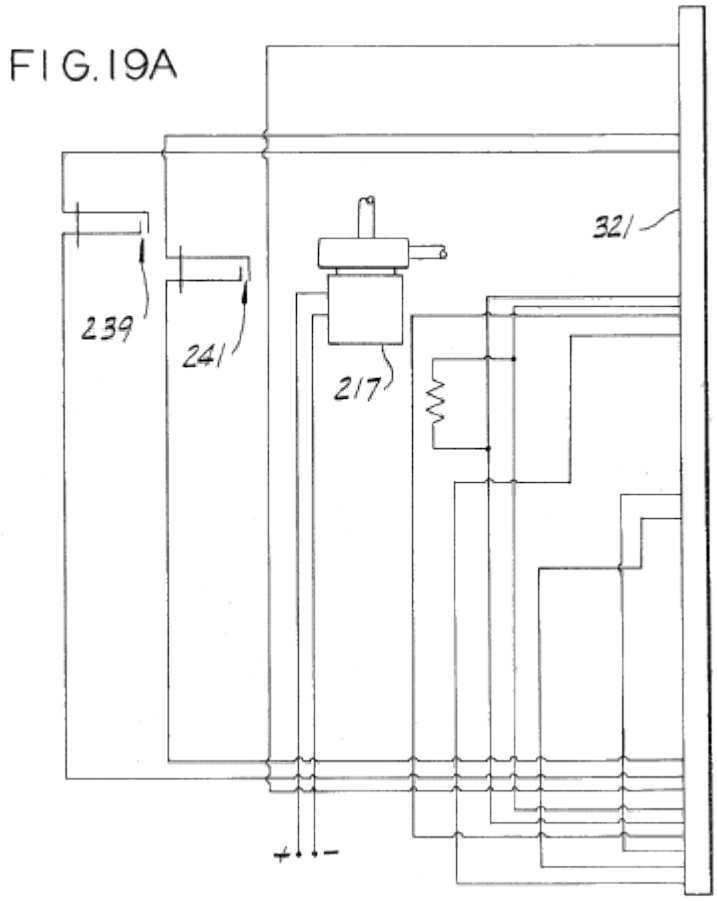
FIG. 18 is a schematic diagram of the mixing chamber portion of the fuel mixer shown in FIGS. 17A-17D;

FIG.18



FIGS. 19A-19E are schematic diagrams of a portion of the electrical circuitry of the fuel mixer shown in FIGS. 17A-17D;

FIG.19A



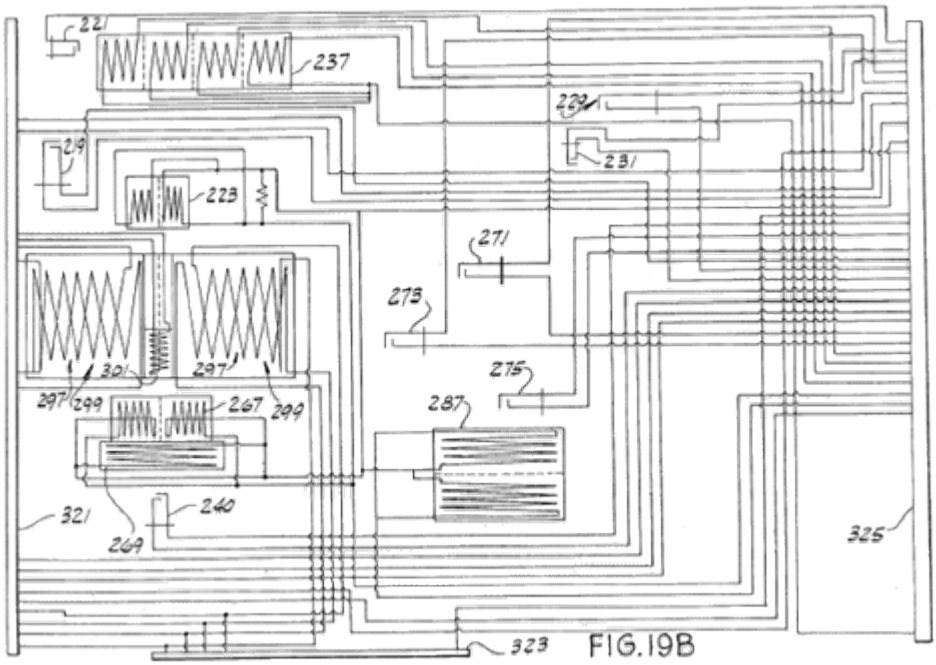
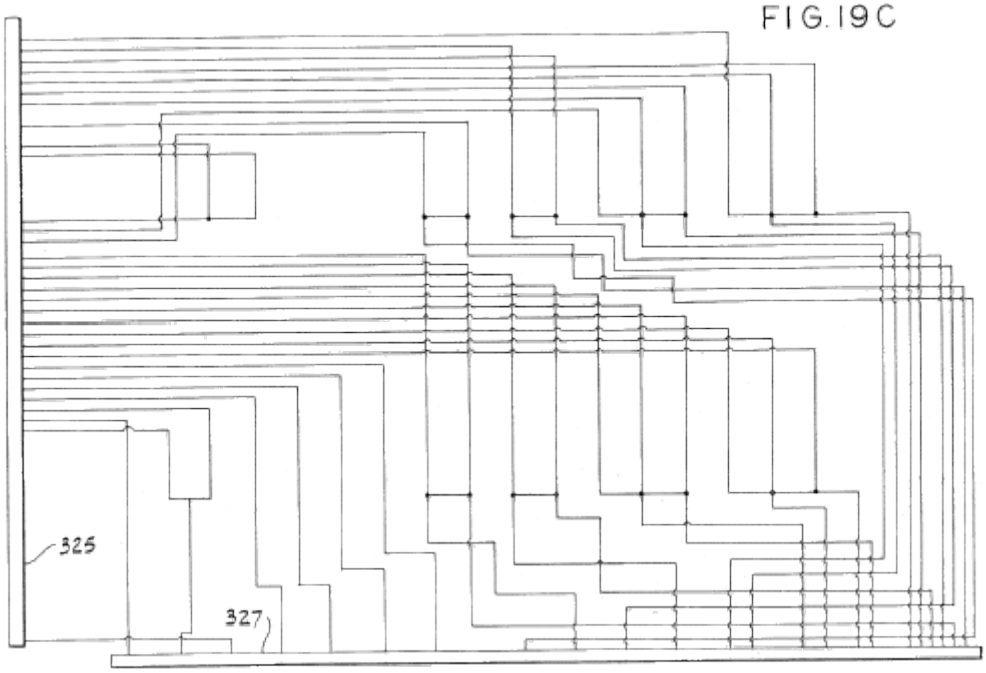


FIG. 19B

FIG. 19C



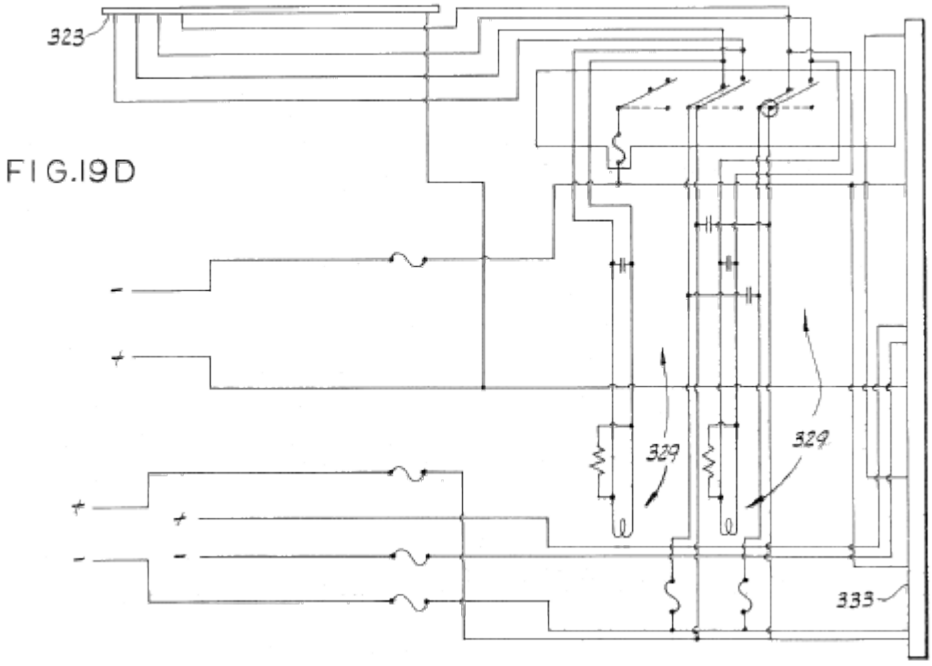


FIG.19D

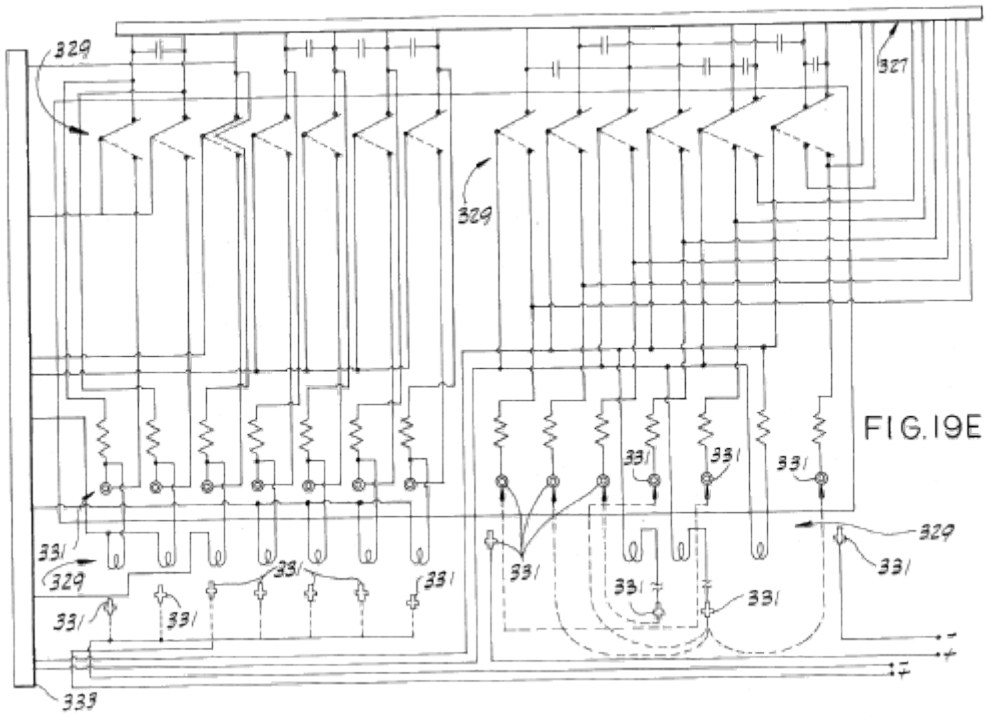


FIG.19E

FIGS. 20A-20F are schematic diagrams of the rest of the electrical circuitry of the fuel mixer shown in FIGS. 17A-17D.

FIG.20A

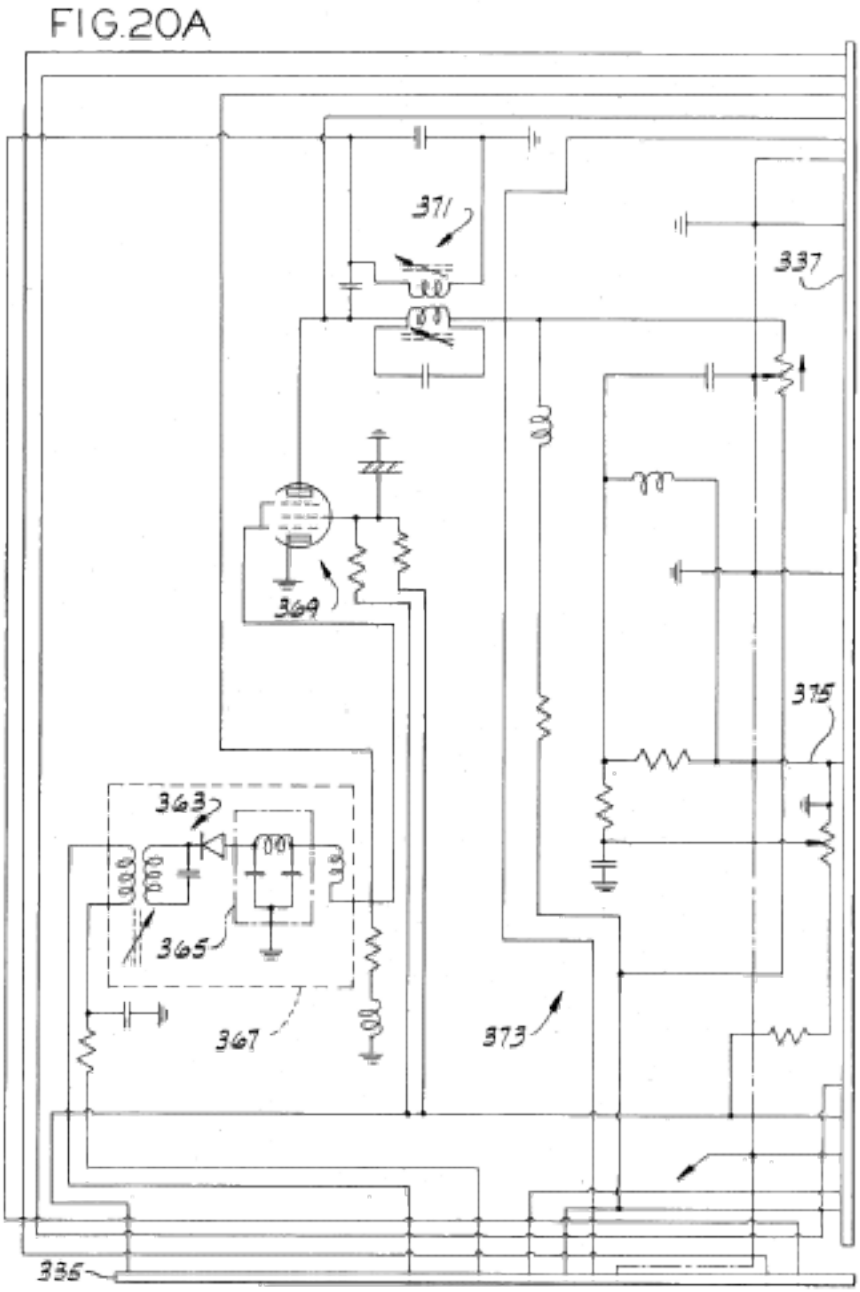


FIG. 20B

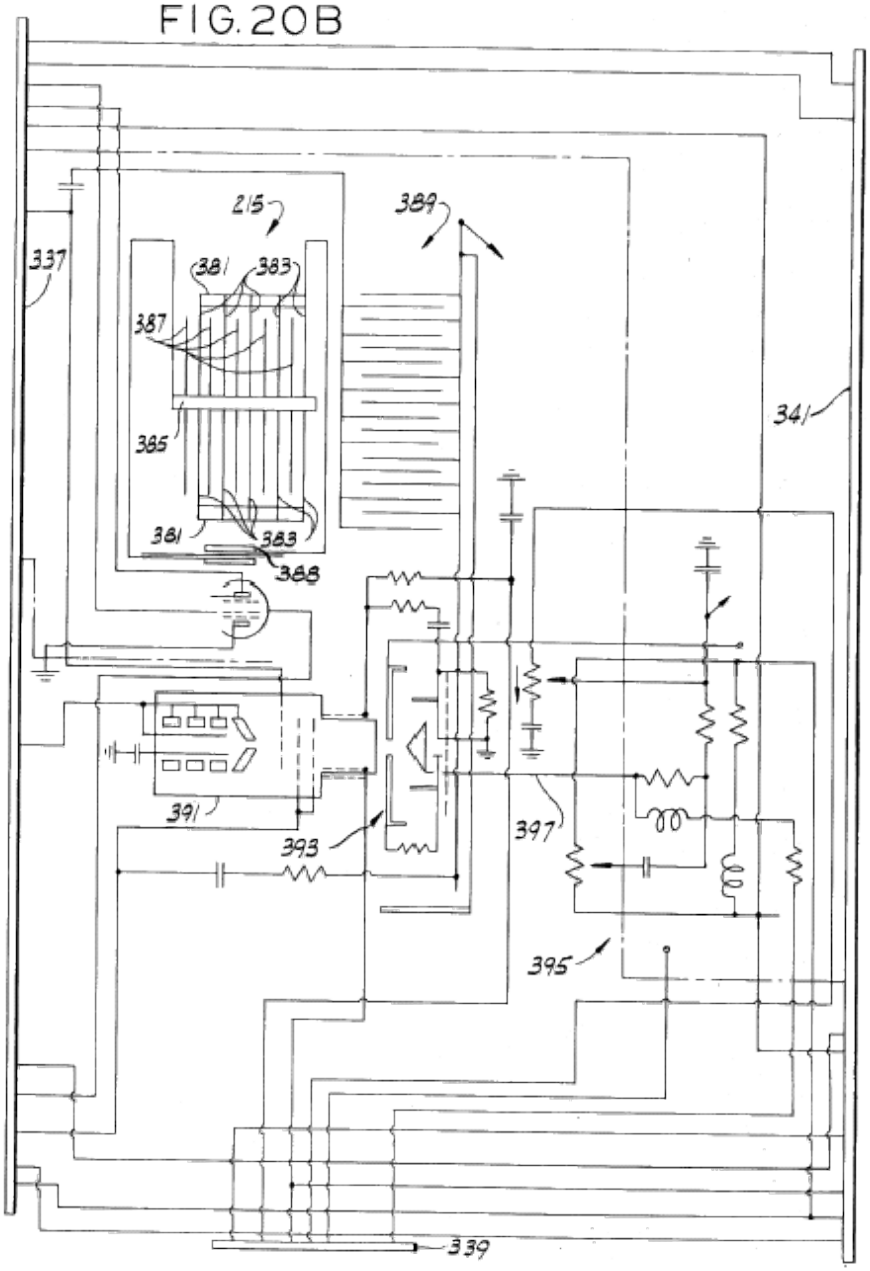
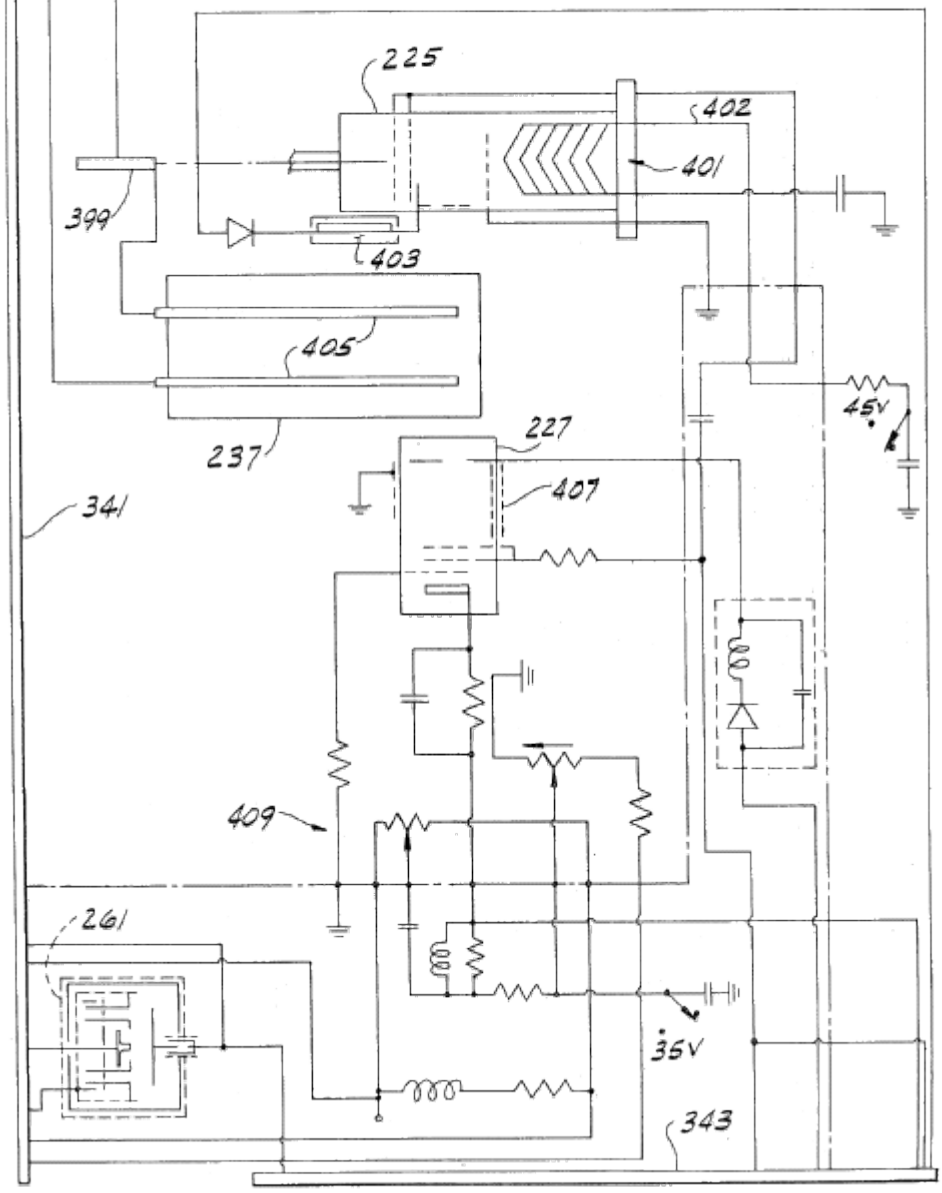


FIG. 20C



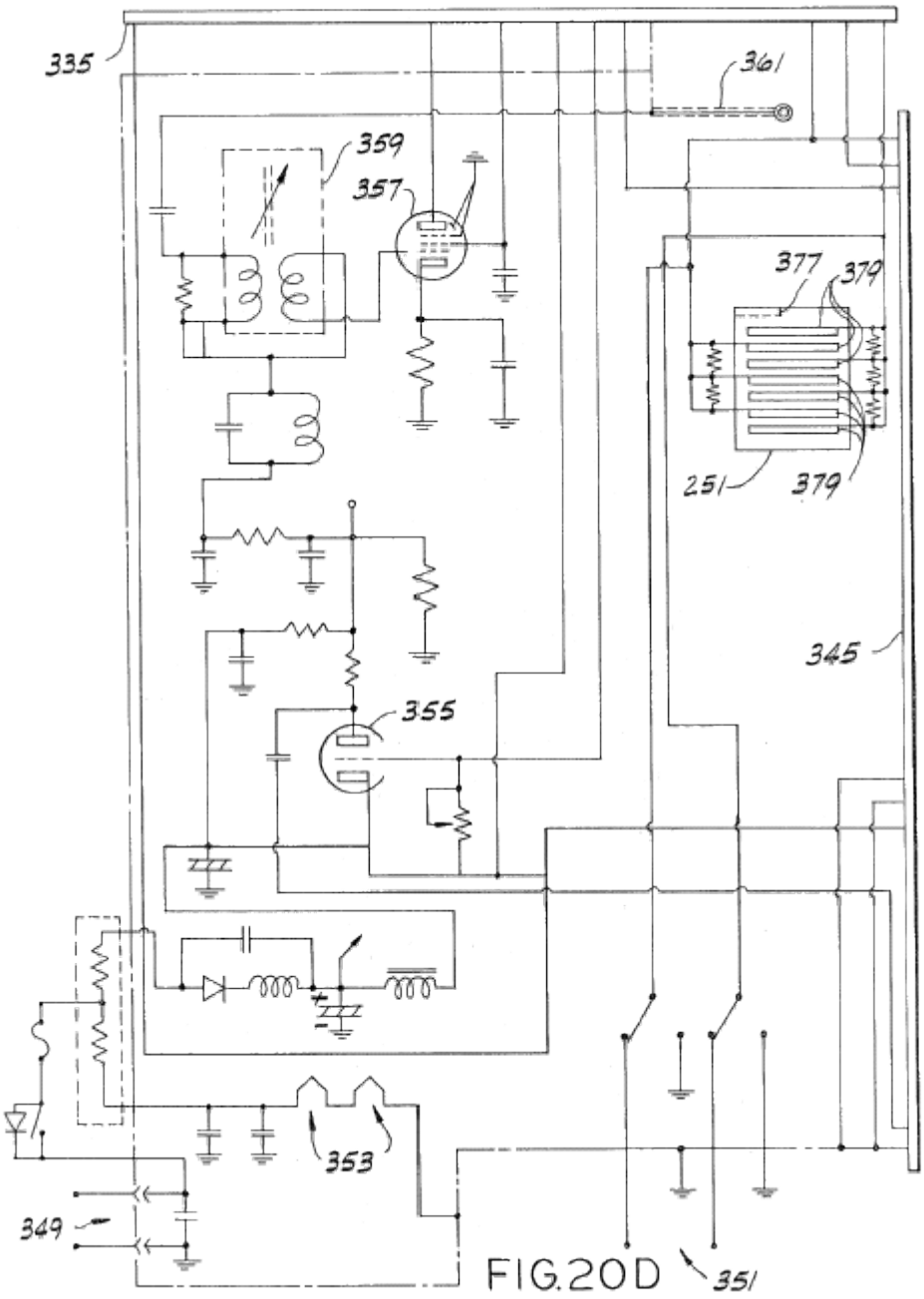
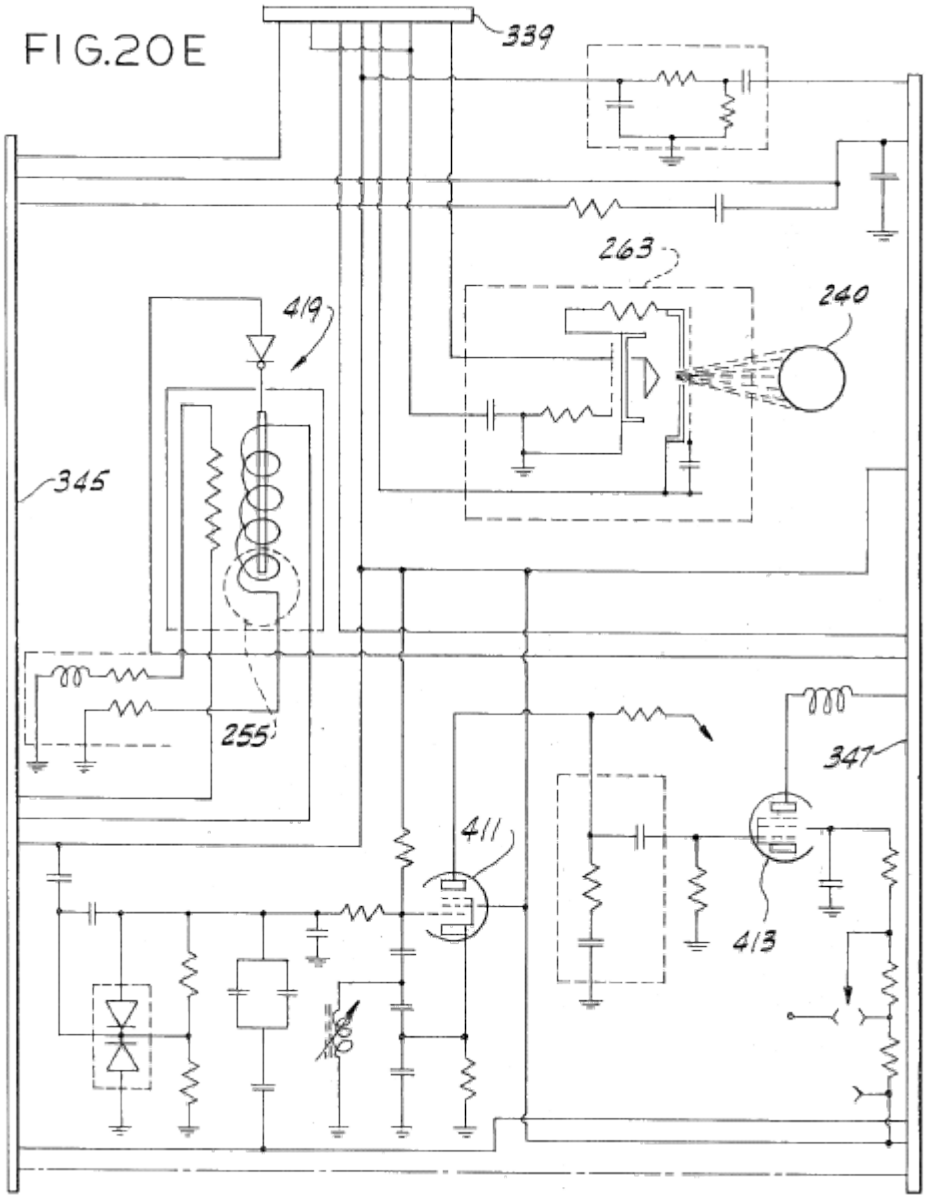


FIG. 20D

FIG.20E



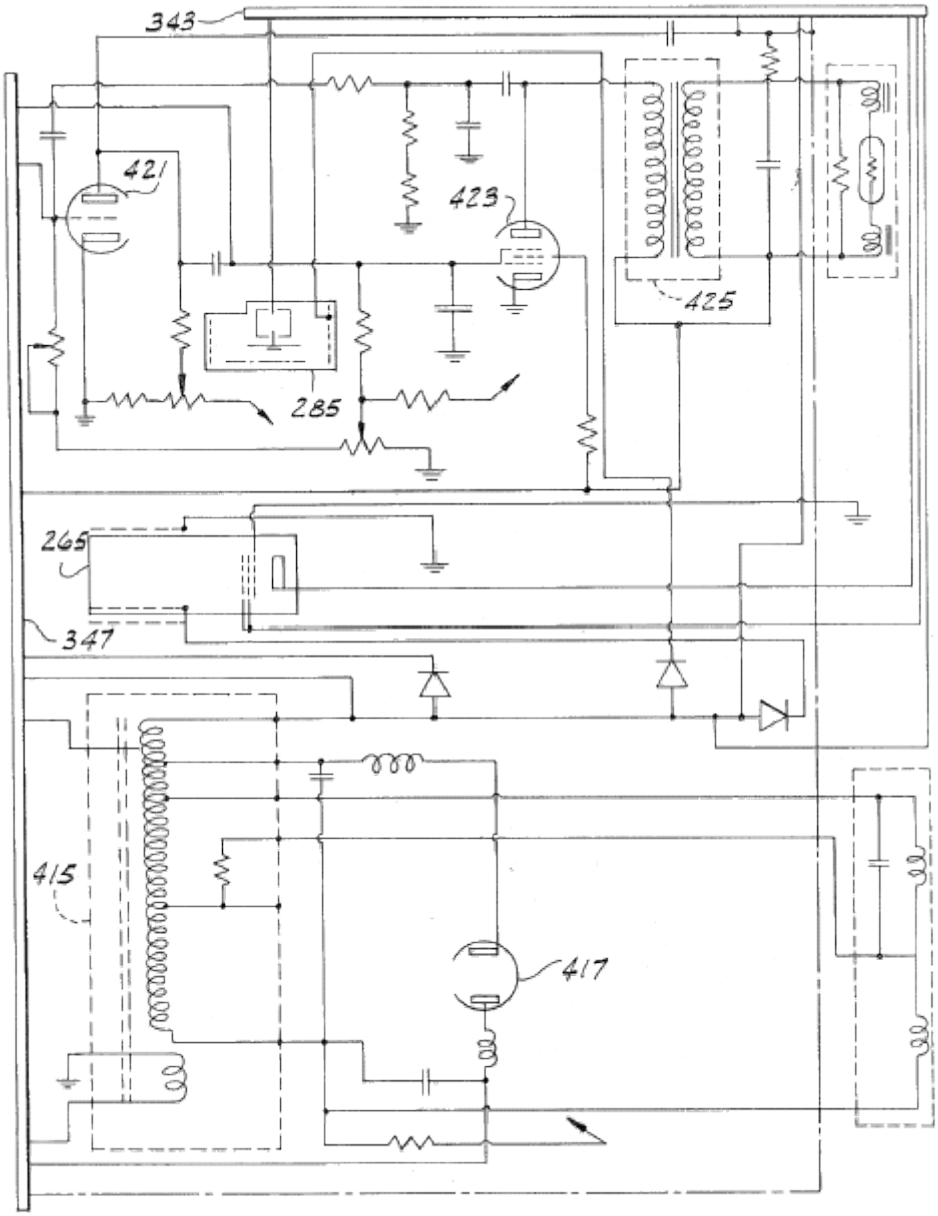


FIG. 20F

Corresponding reference characters indicate corresponding parts throughout the several views of the drawings.

Description of a Preferred Embodiment ~

Referring to the drawings, there is shown in FIG. 1 a two-cylinder engine 11 comprising a block 13 preferably of a nonmagnetic material such as aluminum, a nonmagnetic head 15, and a pair of cylinder heads 17A and 17B of a magnetizable material such as 0.1-0.3% carbon steel. Also shown in FIG. 1 is a flywheel 19 attached to a crankshaft 21, a generator 23, a high-voltage coil 25, a distributor 27 attached by a gear arrangement shown in part at 29 to the crankshaft, and an electrical cable 31 which is connected to the distributor and to both cylinders. Cable 31 (see FIG. 2) is also electrically connected to a switching unit 33 which preferably comprises a plurality of silicon controlled rectifiers (SCRs) or transistors. Also shown in FIG. 2 is a second electrical connection of the cable to the cylinders, which connection is indicated generally at 35. Turning to FIG. 3, there is shown a starter motor 37 as well as a clearer view of the connections 35 to each cylinder.

A cross section of the engine is shown in FIG. 4. The cylinder heads have associated therewith pistons, designated 39A and 39B, respectively, the heads and pistons defining opposite ends of a pair of chambers or cylinders 41A and 41B respectively. The pistons are made of a magnetizable material. Although only two chambers are shown, the engine can include any number. It is preferred, however, for reasons set forth below, that there be an even number of cylinders. Pistons 39A and 39B move axially with respect to their correspoding heads from a first position (the position of piston 39A in FIG. 4) to a second position (the position of piston 39B) and back, each piston being suitably connected to crankshaft 21. As shown in FIG. 4, this suitable connection can include a connecting rod CR, a wrist pin WP, and a lower piston portion or power piston LP. The connecting rods and/or power pistons must be of non-magnetizable material. When a split piston is used, pistons 39A and 39B are suitably connected to lower piston portions LP by bolting, spring-loaded press fitting, or the like. Pistons 39A and 39B are attached 180.degree. apart from each other with respect to the crankshaft so that when one piston is at top dead center (TDC) the other will be at bottom dead center (BDC) and vice versa. Additional pairs of cylinders may be added as desired but the pistons of each pair should be attached to the crankshaft 180.degree. from each other. Of course, the relative position of each piston with respect to its respective head determines the volume of its chamber.

Integral with the piston bodies are walls 43 which form the walls of the chambers. Preferably, a set of air-tight bellows 45, of similar construction to that sold under the designation ME 197-0009-001 by the Belfab Company of Daytona Beach, Fla., are suitably secured between walls 43 and cylinder heads 17A and 17B respectively to form an airtight seal between each piston and its cylinder head. While walls 43 and piston 39 can be made of one magnetizable piece, a preferable and more efficient construction has walls 43 separate from piston 39 and made of a non-magnetizable material. The length of time that a given engine will run is a function of the efficacy of its sealing system. Means, such as bellows 45, for hermetically sealing the cylinders will optimize said length of time. Such a hermetic seal should be secured between walls 43 and cylinder heads 17 to form an airtight seal therebetween. This seal could be the airtight bellows system shown or some other sealing system such as an oil sealing system.

Cylinder bodies 47 (see FIG. 4), made of nonmagnetic material such as stainless steel, extend from the point of attachment of each bellows to its cylinder head to the base of the corresponding pistons, forming sleeves for each piston in which each piston moves. Three sets of electric coils 49A, 49B, 51A, 51B, and 53A, 53B, are wound around sleeves 47, and hence around chambers 41A and 41B, respectively, for generating magnetic fields in the chambers, said coils being generally coaxial with their respective chambers. Each of these coils has an inductance of approximately 100 mH. It is preferred that 14-19 gauge wire be used to wind these coils and that the coils be coated with a suitable coating, such as #9615 hardener from Furane Plastics, Inc., of Los Angeles, Calif. or the coating sold by the Epoxylite Corp. of South El Monte, Calif. under the trade designation Epoxylite 8683. Each chamber is also surrounded by a pair of capacitors, C1A, C1B and C2A, C2B wound therearound, capacitors C1A, C1B having a capacitance of approximately 1.3 micro-F and capacitors C2A, C2B having a capacitance of approximately 2.2 micro-F. The coils and capacitors are potted in hardened epoxy of fiberglass material 55. The epoxy resin and hardener sold under the designations EPI Bond 121 and #9615 hardener by Furane Plastics, supra, are satisfactory, but other epoxy material which will remain stable at temperatures up to 200.degree. F. would probably also be acceptable. It is preferred that a small amount of graphite such as that sold under the trade designation Asbury 225 by Asbury Graphite, Inc. of Rodeo, Calif., be included in the epoxy potting to prevent nucelar particles formed in the chamber from escaping from the apparatus. Ten to 15% graphite to epoxy by weight is more than enough.

A typical cylinder is shown in section in FIG. 5, showing the piston in its fully extended position with respect to the head and showing many details on a somewhat larger scale than that of FIG. 4. A set of seals 57, made of a material such as that sold under the trade designation Teflon by the DuPont Company of Delaware, is disposed between the cylinder head and wall 43 to prevent escape of the

working fluid from chamber 41. A filler tube 59 with a ball valve at its lower end is used in filling the chamber with the working fluid but is closed during operation of the engine.

The cylinder head has a generally concave depression therein, indicated at 61, which defines the top end of the chamber. A plurality of electrodes for exciting and igniting the working fluid extend through the cylinder head into the chamber. Two of those electrodes, shown in section in FIG. 5 and labelled 63 and 65, have tungsten points 75 (see infra), while the other two, labelled 67 and 69 (see FIG. 6 for electrode 69) are containers called, respectively, the anode and the cathode. The electrodes are generally equidistantly spaced from the axes of their chambers and are generally coplanar to each other, their mutual plane being perpendicular to the axes of their chambers. Each electrode is disposed 90.degree. from adjacent electrodes in this embodiment and are generally disposed such that a line from the anode to the cathode and a line between the other two electrodes intersect at a focal point generally on the axis of the respective chamber. The radial distance of each electrode from the focal point is fixed for a reason discussed below. The general construction of electrodes 63 and 65 is shown in FIGS. 6-9. These electrodes include a conductive rod 71 (see FIG. 7) preferably of brass or copper; a conductive, generally rectangular plate 73 (see FIGS. 6, 8 and 9); and tungsten point 75 mounted in a conductive base 77 generally at right angles to the plate (see FIGS. 8 and 9).

The construction of the anode and cathode is shown in FIG. 10. Each includes a conductive rod 79 and a container 81. The cathode container is substantially pure aluminum. If desired, aluminum alloys with, e.g., less than 5% copper, 1% manganese and 2% magnesium may be used. In one embodiment, the cathode container contains approximately four grams of thorium-232 and is filled with argon. In this same embodiment the anode container is copper or brass and contains approximately two grams of rubidium-37 and approximately three grams of phosphorus-15 hermetically sealed in mineral oil. In a second embodiment, the cathode is still aluminum, but it contains at least two grams of rubidium-37 in addition to the approximately four grams of thorium-232 in either argon or mineral oil. In this second embodiment, the anode is also aluminum and contains at least 4 grams of phosphorus-15 and at least 2 grams of thorium-232 in argon or mineral oil. Alternatively, mesothorium may be used for the thorium, strontium-38 may be used for the rubidium, and sulfur-16 may be used for the phosphorus. Rods 71 and 79 respectively extend through cylinder head 17 to the exterior thereof where electrical connections are made to the electrodes. Each rod is surrounded by one of four insulating sleeves 83, the lower portion of each of which being flared outwardly to firmly seat in the cylinder head.

The piston has a generally semitoroidal depression in its upper surface (see FIGS. 4, 5 and 11) and carries a conductive discharge point 85 of copper, brass or bronze generally along the axis of the chamber. When the piston is generally extended, the discharge point is a substantial distance from the electrodes. But when the piston is in its upper position (see FIG. 11), the discharge point is disposed generally intermediate all four electrodes and in close proximity thereto, there being gaps between said electrodes and the discharge point. When the piston is in this upper position, the electrodes extend somewhat into the semitoroidal depression in the piston's upper surface and the chamber is generally toroidal in shape. The volume of the chamber shown in FIG. 11 can be from approximately 6.0 cubic inches (100 cm.sup.3) or larger. Given the present state of the art, 1500 cubic inches (25,000 cm.sup.3) appears to be the upper limit. A plurality of ports 87 and one-way valves 89 return working fluid which escapes from the chamber back thereto, so long as a sealing system such as bellows 45 is used.

An alternative cylinder head/piston arrangement is shown in FIG. 12. The main difference between this arrangement and that of FIG. 5 is that the chamber walls, here labelled 43' are integrally formed with the head. As a result seals 57 are carried by the piston rather than by the head, the attachment of bellows 45 is somewhat different, and the fluid-returning valves and ports are part of the piston rather than of the head. Otherwise these arrangements are substantially the same. Preferably, the

cylinders of both arrangements are hermetically sealed.

An additional embodiment of a cylinder head/piston arrangement used in the present invention is shown in FIG. 12A. In this arrangement, a tapered sleeve 17C is disposed in mating relation between cylinder head 17 and piston 39, a plurality of seals 57 are provided, and electrodes 67 and 69 have a somewhat different shape. Moreover, in this embodiment a chamber 90 is provided in cylinder head 17 for storing additional working fluid, i.e., the purpose of chamber 90 is to extend the operating time between refueling by circulating the working fluid, viz. the mixture of inert gases described infra, between cylinder 41 and chamber 90 as needed so that the reactions in cylinder 41 are not adversely affected. To accomplish this, this embodiment further includes a two-way circulation valve 90B, a relief valve 90C, and duct or passageway 90D for evacuating and filling chamber 90, a duct or passageway 90E for evacuating and filling cylinder 41, a passageway 90F between chamber 90 and cylinder 41 in which two-way valve 90B is disposed, a sensor 90G and a plurality of small pressure relief holes 90H. Relief holes 90H serve to relieve the pressure on bellows 45 as the piston moves from BDC to TDC. In larger engines holes 90H should be replaced with one way valves. Two-way valve 90B is either controlled by sensor 90G or is manually operable, as desired, to allow the circulation of gases between chamber 90 and cylinder 41. The sensor itself detects a condition requiring the opening or closing of valve 90B and signals that condition to the valve. For example, sensor 90G can measure pressure in cylinder 41 while the piston is at top dead center. A predetermined cylinder pressure can cause a spring to compress, causing the valve to open or close as appropriate. A subsequent change in the cylinder pressure would then cause another change in the valve. Another sensor (not shown) could measure the physical location of the piston by a physical trip switch or an electric eye, or it could measure angular distance from top dead center on the distributor or the crankshaft. The sensor must keep the gas pressure in chamber 90 at one atmosphere .+-.5% and, at top dead center, cylinder 41 should also be at that pressure. If gas is lost from the system, it is more important to maintain the proper pressure in cylinder 41. Alternatively, a small passage between cylinder 41 and chamber 90 could function in a passive manner to satisfactorily accomplish the same result. From the above, it can be seen that this embodiment utilizes the hollowed out center of the cylinder head for storing additional working fluid, which fluid is circulated between chamber 90 and cylinder 41 through a valving system comprising valve 90B and sensor 90G with the moving piston causing the gases to circulate.

The electrical circuitry for engine 11 includes (see FIG. 13A) a 24 V battery B1, an ignition switch SW1, a starter swich SW2, starter motor 37, a main circuit switch SW4, a step-down transformer 93 (e.g., a 24 V to 3.5 V transformer), a switch SW6 for supplying power to ignition coil 25 (shown in FIGS. 13A and 13B as two separate ignition coils 25A and 25B), and various decoupling diodes.

The circuitry of FIG. 13A also includes a high frequency voltage source or oscillator 95 for supplying rapidly varying voltage through two electronic current regulators 97A, 97B (see FIG. 13B for regulator 97B) to the anode and cathode electrodes of each cylinder, and a high voltage distributor 99 for distributing 40,000 volt pulses to the cylinders. Distributor 99 has two wipers 99A and 99B and supplies three pulses to each cylinder per cycle. Wipers 99A and 99B are 180.degree. out of phase with each other and each operates to supply pulses to its respective cylinder from TDC to 120.degree. thereafter. More pulses are desirable and therefore a better distributor arrangement (shown in FIG. 14) may be used. The arrangement shown in FIG. 14 includes two ignition coils 101, 103, a simple distributor 105 and a pair of magnetic ignition circuits 107, 109, described below. Of course many other ignition systems could also be developed. For example, a single circuit might be used in place of circuits 107, 109, additional induction coils might be added to the ignition coils to assist in starting or a resistor could be added to the ignition coils to ensure a constant 40,000 volt output regardless of engine rpm. Moreover, a solid-state distributor could be used instead of the mechanical distributor labelled 99.

Referring back to FIG. 13A, for engines of more than 1000 hp a high frequency source 95 could be

used to control engine RPM. The output frequency is controlled by a foot pedal similar to an accelerator pedal in a conventional automobile. The output frequency varies through a range of from approximately 2.057 MHz to approximately 27.120 MHz with an output current of approximately 8.4 amps. The speed of engine 11 is controlled by the output frequency of source 95. The high frequency current, as described infra, is directed to each cylinder in turn by circuitry described infra. For engines producing from 300 to 1000 hp (not shown), a high frequency source having a constant output of 27.120 MHz with a constant current of 3.4 amps which is continually supplied to all cylinders could be used. In this case an autotransformer, such as that sold under the trade designation Variac by the General Radio Company, controlled by a foot pedal varies the voltage to each cylinder from 5 to 24 volts d.c. at 4.5 amps, using power from the batteries or the alternator. The d.c. current from the Variac is switched from cylinder to cylinder by two small electronic switching units which in turn are controlled by larger electronic switching units. For the smallest engines (not shown), a high frequency generator could supply a constant output of 27.120 MHz with a constant current of 4.2 amps to the cylinders during starting only. Speed control would be achieved by a Variac as described above which controls the d.c. voltage supplied to the cylinders in turn within a range of from 5 to 24 volts at a current of 5.2 amps. In this case, once the engine is running, the full voltage needed to ignite the (smaller) quantity of gases is obtained from the electrodes in the other cylinder of the pair.

The circuitry of FIG. 13A also includes the generator, a voltage regulator and relay 111, five electronic switching units 113, 115, 117, 119 and 121, electrodes 63 and 65 associated with chamber 41A (hereinafter chamber 41A is sometimes referred to as the "A" cylinder and chamber 41B is sometimes referred to as the "B" cylinder), anode 67, cathode 69, magnetic coils 49A, 51A and 53A, capacitors C1A and C2A, and various decoupling diodes. The electronic switching units can take a variety of forms. For example, one simple form (see FIG. 15) includes a pair of SCRs 123 and 125. The switching unit is connected at terminal IN to the corresponding line on the input side and at terminal OUT to the corresponding line on the output side. When a voltage of 3.5 volts is supplied from the battery through a distributor, for example, to the ON terminal, SCR 125 conducts, thereby completing a circuit through the switching unit. Conversely, when 3.5 volts is applied to the OFF terminal, SCR 123 conducts and the circuit is broken. Likewise, the circuit for regulators 97A and 97B (see FIG. 16) includes two SCRs 127 and 129 and a PNP transistor 131. In this circuit when SCR 127 is gated on, it forces transistor 131 into conduction, thereby completing the circuit through the regulator. When SCR 129 is gated on, the circuit through transistor 131 is broken. A number of other configurations may be used in place of those of FIGS. 15 and 16 and not all would use SCRs. For example, one triode could be used to replace two main SCRs, or transistors could be used instead of SCRs.

A pair of low-voltage distributors 135 and 137 are also shown in FIG. 13A. Distributors 135 and 137 provide gating pulses for the electronic switching units of FIGS. 13A and 13B. Of course, solid-state distributors could also replace mechanical distributors 135 and 137.

In addition, the engine circuitry includes (see FIG. 13B) five electronic switching units 143, 145, 147, 149 and 151 corresponding to units 113, 115, 117, 119 and 121 of FIG. 13A, electrodes 63 and 65 of the "B" cylinder, anode 67, cathode 69, electric coils 49B, 51B and 53B, capacitors C1B and C2B, and various decoupling diodes. The circuitry of FIG. 13B is generally the same as the corresponding portions of FIG. 13A, so the description of one for the most part applies to both. Of course, if more than two cylinders are used, each would have associated therewith circuitry such as that shown in FIGS. 13A and 13B. The circuitry of FIG. 13A is connected to that of FIG. 13B by a plurality of line L1-L17.

The working fluid and the fuel for the engine are one and the same and consist of a mixture of inert gases, which mixture consists essentially of helium, neon, argon, krypton and xenon. It is preferred that the mixture contain 35.6% helium, 26.3% neon, 16.9% argon, 12.7% krypton, and 8.5% xenon

by volume, it having been calculated that this particular mixture gives the maximum operation time without refueling. Generally, the initial mixture may contain, by volume, approximately 36% helium, approximately 26% neon, approximately 17% argon, approximately 13% krypton, and approximately 8% xenon. This mixture results from a calculation that equalizes the total charge for each of the gases used after compensating for the fact that one inert gas, viz. randon, is not used. The foregoing is confirmed by a spectroscopic flashing, described infra, that occurs during the mixing process. If one of the gases in the mixture has less than the prescribed percentage, it will become over-excited. Similarly, if one of the gases has more than the prescribed percentage, that gas will be under-excited. These percentages do not vary with the size of the cylinder.

Operation of the engine is as follows: At room temperature, each cylinder is filled with a one atmosphere charge of the fuel mixture of approximately 6 cubic inches (100 cm.sup.3)/cylinder (in the case of the smallest engine) by means of filler tube 59. The filler tubes are then plugged and the cylinders are installed in the engine as shown in FIG. 4, one piston being in the fully extended position and the other being in the fully retracted position. To start the engine, the ignition and starter switches are closed, as is switch SW6. This causes the starter motor to crank the engine, which in turn causes the wiper arms of the distributors to rotate. The starting process begins, for example, when the pistons are in the positions shown in FIG. 4. Ignition coil 25 and distributor 99 (see FIG. 13A) generate a 40,000 volt pulse which is supplied to electrode 65 of chamber 41A. Therefore, a momentary high potential exists between electrodes 63 and 65 and the plates on each. The discharge point on piston 39A is adjacent these electrodes at this time and sparks occur between one or more of the electrodes and the discharge point to partially excite, e.g. ionize, the gaseous fuel mixture.

The gaseous fuel mixture in cylinder 41A is further excited by magnetic fields set up in the chamber by coil 49A. This coil is connected to the output side of electronic switching unit 121 and, through switching unit 113, to the battery and the generator. At this time, i.e., between approximately 5.degree. before TDC and TDC, distributor 135 is supplying a gating signal to unit 121. Any current present on the input side of unit 121, therefore, passes through unit 121 to energize coil 49A. Moreover, high frequency current from oscillator 95 is supplied via regulator 97A to coil 49A. This current passes through regulator and relay 97A because the gating signal supplied from distributor 135 to unit 121 is also supplied to relay 97A. The current from switching unit 121 and from oscillator 95 also is supplied to the anode and the cathode. It is calculated that this causes radioactive rays (x-rays) to flow between the anode and the cathode, thereby further exciting the gaseous mixture.

As the starter motor continues cranking, piston 39A begins moving downward, piston 39B begins moving upward, and the wiper arms of the distributors rotate. (Needless to say, a solid-state distributor would not rotate. The distributor could utilize photo cells, either light or reflected light, rather than contact points.) After 45.degree. of rotation, distributor 135 supplies a gating pulse to electronic switching unit 119, thereby completing a circuit through unit 119. The input to unit 119 is connected to the same lines that supply current to coil 49A. The completion of the circuit through unit 119, therefore, causes coil 51A to be energized in the same manner as coil 49A. After an additional 45.degree. of rotation, distributor 135 gates on electronic switching unit 117 which completes a circuit to the same lines. The output terminal of unit 117 is connected to coil 53A, and so this coil is energized when unit 117 is gated on. All three coils of the "A" cylinder remain energized and, therefore, generating magnetic fields in chamber 41A until piston 39A reaches BDC.

As piston 39A moves from TDC to BDC, two additional 40,000 volt pulses (for a total of three) are supplied from distributor 99 to the "A" cylinder. These pulses are spaced approximately 60.degree. apart. If more pulses are desired, the apparatus shown in FIG. 14 may be used. In that case, the solenoids indicated generally at 107A, 107B and 109A, 109B are energized to create a number of rapid, high-voltage pulses which are supplied as indicated in FIG. 14 to the cylinders, distributor 105

operating to supply pulses to only one of the pair of cylinders at a time.

As piston 39A reaches BDC, distributor 135 sends a pulse to the OFF terminals of electronic switching units 121, 117 and 119, respectively, causing all three coils 49A, 51A and 53A to be deenergized. At about the same time, i.e., between approximately 5.degree. prior to TDC and TDC for piston 39B, distributor 137 supplies a gating pulse to the ON terminals of electronic switching units 113 and 115. The power inputs to units 113 and 115 come from the generator through regulator 111 and from the battery, and the outputs are directly connected to coils 49A and 53A. Therefore, when units 113 and 115 are gated on, coils 49A and 53A are reenergized. But in this part of the cycle, the coils are energized with the opposite polarity, causing a reversal in the magnetic field in chamber 41A. Note that coil 51A is not energized at all during this portion of the cycle. Capacitors C1A and C2A are also charged during the BDC to TDC portion of the cycle. (During the TDC to BDC portion of the cycle, these capacitors are charged and/or discharged by the same currents as are supplied to the anode and cathode since they are directly connected thereto.)

As piston 39A moves upward, electrodes 63 and 65 serve as pick-up points in order to conduct some of the current out of chamber 41A, this current being generated by the excited gases in the chamber. Said current is transferred via line L7 to electronic switching unit 151. The same gating pulse which gated on units 113 and 115 was also supplied from distributor 137 via line L12 to gate on switching unit 151, so the current from the electrodes of chamber 41A passes through unit 151 to the anode, cathode and capacitors of chamber 41B, as well as through switching units 147 and 149 to coils 49B, 51B and 53B. Thus it can be seen that electricity generated in one cylinder during a portion of the cycle is transferred to the other cylinder to assist in the excitation of the gaseous mixture in the latter. Note that this electricity is regulated to maintain a constant in-engine current. It should be noted that twenty four volts from the generator is always present on electrodes 63 and 65 during operation to provide for pre-excitement of the gases.

From the above it can be seen that distributors 135 and 137 in conjunction with electronic switching units 113, 115, 117, 119, 121, 143, 145, 147, 149 and 151 constitute means for individually energizing coils 49A, 49B, 51A, 51B, 53A and 53B. More particularly they constitute means operable to energize all the coils of a given cylinder from the other cylinder when the first cylinder's piston is moving from TDC to BDC and operable to energize only two (i.e., less than all) of the coils from the alternator when that piston is moving from BDC to TDC. Additionally, these components constitute means for energizing the coils with a given polarity when the piston of that cylinder is moving from TDC to BDC and for energizing the first and third coils with the opposite polarity when that piston is moving from BDC to TDC.

As can also be seen, switching units 121 and 151 together with distributors 135 and 137 constitute means for closing a circuit for flow of current from chamber 41A to chamber 41B during the BDC to TDC portion of the cycle of chamber 41A and for closing a circuit for flow of current from chamber 41B to chamber 41A during the TDC to BDC portion of the cycle of chamber 41A. Oscillator 95 constitutes means for supplying a time varying electrical voltage to the electrodes of each cylinder, and oscillator 95, distributors 135 and 137, and regulators 97A and 97B together constitute means for supplying the time varying voltage during a predetermined portion of the cycle of each piston. Moreover, distributor 99 together with ignition coils 25A and 25B constitute means for supplying high voltage pulses to the cylinders at predetermined times during the cycle of each piston.

The cycle of piston 39B is exactly the same as that of piston 39A except for the 180.degree. phase difference. For each cylinder, it is calculated that the excitation as described above causes the gases to separate into layers, the lowest atomic weight gas in the mixture, namely helium, being disposed generally in the center of each chamber, neon forming the next layer, and so on until we reach xenon which is in physical contact with the chamber walls. The input current (power) to do this is the calculated potential of the gas mixture. Since helium is located in the center of the chamber, the focal

point of the electrode discharges and the discharges between the anode and cathode is in the helium layer when the piston is near TDC. As the piston moves slightly below TDC, the electrons from electrodes 63 and 65 will no longer strike the tip of the piston, but rather will intersect in the center of the cylinder (this is called "focal point electron and particle collision") as will the alpha, beta and gamma rays from the anode and cathode. Of course, the helium is in this exact spot and is heavily ionized at that time. Thus the electrodes together with the source of electrical power connected thereto constitute means for ionizing the inert gas. It is calculated that as a result of all the aforementioned interactions, an ignition discharge occurs in which the helium splits into hydrogen in a volume not larger than 2 or 3 times 10.sup.-6 cubic millimeters at a temperature of approximately 100,000,000.degree. F. Of course this temperature is confined to a very small space and the layering of the gases insulates the cylinder walls therefrom. Such heat excites adjacent helium such that a plasma occurs. Consequently, there is a minute fusion reaction in the helium consisting of the energy conversion of a single helium atom, which releases sufficient energy to drive the piston in that chamber toward BDC with a force similar in magnitude to that generated in a cylinder of a conventional internal combustion engine. Electrodes 63 and 65 extend into the argon layer while each piston is in its BDC to TDC stroke so as to pick up some of the current flowing in that layer. It may take a cycle or two for the gases in the cylinders to become sufficiently excited for ignition to occur.

Once ignition does occur, the electrical operation of the engine continues as before, less the operation of the starter motor. Distributor 99 supplies three pulses per cycle (or more if the magnetic ignition system of FIG. 14 is used) to each cylinder; and distributors 135 and 137 continue to supply "on" and "off" gating pulses to the electronic switching units. The rpm of the engine is, as explained above, governed by the frequency of the current from oscillator 95 (or in the case of smaller horsepower units, by the dc voltage supplied to the cylinders from the aforementioned Variac).

Because of the minute amount of fuel consumed in each cycle, it is calculated that a cylinder can run at 1200 rpm approximately 1000 hours, if not more, on a single charge of gas. Note that even at 1200 rpm, there will be intense heat occurring only 0.002% of the time. This means that input power need be applied only sporadically. And this power can be supplied to a cylinder from the other cylinder of its pair by means of electronic switching units which, in the case of SCRs, are themselves triggered by low voltage (e.g. 3.5 V) current. Thus, since electrical power generated in one cylinder is used to excite the gases in the other cylinder of a pair, it is practical that the cylinders be paired as discussed above. Condensers are, of course, used to store such energy for use during the proper portion of the cycle of each cylinder.

From the above, it should be appreciated that the engine of this invention has several advantages over presently proposed fusion reactors, such as smaller size, lower energy requirements, etc. But what are the bases of these advantages? For one, presently proposed fusion reactors use hydrogen and its isotopes as a fuel instead of inert gases. Presumably this is because hydrogen requires less excitement power. While this is true, the input power that is required in order to make hydrogen reactors operate makes the excitation power almost insignificant. For example, to keep a hydrogen reactor from short circuiting, the hydrogen gas has to be separated from the reactor walls while it is in the plasma state. This separation is accomplished by the maintenance of a near vacuum in the reactor and by the concentration of the gas in the center of the reactor (typically a toroid) by a continuous, intense magnetic field. Accordingly, separation requires a large amount of input energy.

In the present invention, on the other hand, the greater excitation energy of the fuel is more than compensated for by the fact that the input energy for operation can be minimized by manipulation of the unique characteristics of the inert gases. First, helium is the inert gas used for fusion in the present invention. The helium is primarily isolated from the walls of the container by the layering of the other inert gases, which layering is caused by the different excitation potential (because of the different atomic weights) of the different inert gases, said excitation being caused by the action of the

electrodes, anode and cathode in a magnetic field. This excitation causes the gases each to be excited in inverse proportion to their atomic numbers, the lighter gases being excited correspondingly more. Helium, therefore, forms the central core with the other four gases forming layers, in order, around the helium. The helium is secondarily isolated from the walls of the container by a modest vacuum (in comparison to the vacuum in hydrogen reactors) which is caused partially by the "choking" effect of the coils and partially by the enlargement of the combustion chamber as the piston moves from TDC to BDC. (Unexcited, the gases are at one atmosphere at TDC.) Second, argon, the middle gas of the five, is a good electrical conductor and becomes an excellent conductor when (as explained infra) it is polarized during the mixing process. By placing the electrodes such that they are in the argon layer, electrical energy can be tapped from one cylinder for use in the other. During a piston's movement from BDC to TDC, the gases are caused to circulate in the cylinder by the change in the polarity of the coils, which occurs at BDC. During such circulation, the gases remain layered, causing the argon atoms to be relatively close to each other, thereby optimizing the conductivity of the argon. This conductivity optimization is further enhanced by a mild choking effect that is due to the magnetic fields. The circulation of the highly conductive argon results in a continuous cutting of the magnetic lines of force so that the current flows through the electrodes. This production of electricity is similar to the rotating copper wire cutting the magnetic lines of force in a conventional generator except that the rotating copper wire is replaced by the rotating, highly conductive argon. The amount of electricity that can be produced in this manner is a function of how many magnetic field lines are available to be cut. If one of the coils, or all three of the coils or two adjacent coils were energized, there would be only one field with electricity produced at each end. By energizing the top and the bottom coil, two separate fields are produced, with electricity produced at four points. A five coil system, if there were sufficient space, would produce three fields with the top, bottom and middle coils energized. Six points for electricity production would result. The number of coils that can be installed on a given cylinder is a function of space limitations. The recombination of gas atoms during the BDC to TDC phase causes the radiation of electrical energy which also provides a minor portion of the electricity that the electrode picks up. Additional non-grounded electrodes in each cylinder would result in more electricity being tapped off. It should be noted that during the BDC to TDC phase, the anode and the cathode are also in the argon layer and, like the electrodes, they pick up electricity, which charges the capacitors around the cylinder. Third, inert gases remain a mixture and do not combine because of the completeness of the electron shells. They are therefore well suited to a cycle whereby they are continually organized and reorganized. Fourth, as the helium atoms are consumed, the other gases have the capacity to absorb the charge of the consumed gas so that the total charge of the mixture remains the same.

The second basis of these advantages of the present engine over proposed fusion reactors concerns the fact that hydrogen reactors develop heat which generates steam to turn turbines in order to generate electrical power. This requires tremendous input energy on a continuous basis. The present invention operates on a closed cycle, utilizing pistons and a crankshaft which does not require a continuous plasma but rather an infrequent, short duration (10.sup.-6 second) plasma that therefore requires much less input energy. In the present invention, a plasma lasting longer than 10.sup.-6 second is not necessary because sufficient pressure is generated in that time to turn the engine. A plasma of longer duration could damage the engine if the heat were sufficiently intense to be transmitted through the inert gas layers to the cylinder walls. A similar heat buildup in the engine can occur if the repetition rate is increased. Such an increase can be used to increase the horsepower per engine size but at the cost of adding a cooling system, using more expensive engine components, and increasing fuel consumption. Note that even though layers of inert gases insulate the cylinder walls, there might be some slight increase in the temperature of the gas layers after a number of cycles, i.e., after a number of ignitions.

Whereas hydrogen fusion reactors cannot directly produce power by driving a piston (because of the required vacuum), the present invention uses the layered inert gases to transmit the power from the plasma to each gas in turn until the power is applied to a piston, which can easily be translated into

rotary motion. The layered gases also cushion the piston from the full force of the ignition. Moreover, the fields inside the cylinder undergoing expansion cause the gases to shrink, thereby taking up some of the pressure generated by the explosion and preventing rupturing of the cylinder walls.

Turning now to FIGS. 17A-17D, there is shown apparatus 201 for preparing the fuel mixture for engine 11. For convenience apparatus 201 is called a mixer although it should be understood that the apparatus not only mixes the gases which form the fuel but also performs many other vital functions as well. The five constituent inert gases are introduced in precise, predetermined proportions. The mixer extracts, filters and neutralizes the non-inert gases and other contaminants which may be found in the gas mixture. It also increases the potential capacity of gas atoms, discharges the krypton and xenon gases, polarizes the argon gases, ionizes the gases in a manner such that the ionization is maintained until the gas has been utilized and otherwise prepares them for use as a fuel in engine 11. In particular, the mixer makes the gases easier to excite during operation of the engine. Mixing does not mean an atomic or molecular combination or unification of gases because inert gases cannot chemically combine, in general, due to the completeness of the outer shell of electrons. During mixing, the various gases form a homogeneous mixture. The mixing of the five inert gases in apparatus 201 is somewhat analogous to preparing a five part liquid chemical mixture by titration. In such a mixture, the proportions of the different chemicals are accurately determined by visually observing the end point of each reaction during titration. In apparatus 201, a visible, spectroscopic flash of light accompanies the desired end point of the introduction of each new gas as it reaches its proper, precalculated proportion. (Each gas has its own distinctive, characteristic, spectroscopic display.) The ends points are theoretically calculated and are determined by pre-set voltages on each of a group of ionizing heads, described infra, in the apparatus.

Mixer 201 includes (see FIG. 17A) an intake port, indicated generally at 203, which during operation is connected to a source 205 of helium gas, a gauge 206, glass tubing 207 comprising a plurality of branches B10-B25 for flow of the gases through the mixer, a plurality of valves V1-V11 in the branches, which valves may be opened or closed as necessary, three gas reservoirs 209, 211 and 213 for storing small quantities of helium, argon and neon gas respectively, an ionizing and filtering unit 215 for filtering undesired non-inert gases and contaminants out of the fuel mixture, for regulating the gas atom electron charge and to absorb the free flowing electrons, a gas flow circulation pump 217, two ionizing heads 219 and 221, and three quality control and exhaust valves V12-V14. The mixer also comprises (see FIG. 17B) a high frequency discharge tube 225, a non-directed cathode ray tube 227, two more ionizing heads 229 and 231, two additional gas reservoirs 233 and 235 for storing small quantities of xenon and krypton, a quadruple magnetic coil 237, a plurality of valves V15-V24, valves V23 and V24 being quality control and exhaust valves, and a plurality of additional glass tubing branches B26-B32.

Turning to FIG. 17C, mixer 201 also includes additional ionizing heads 239, 240 and 241, additional valves V25-V46, V39A and V40A, valves V29 and V32 being quality control and exhaust valves and valve V39A being a check valve, a vacuum and pressure gauge 242 between valves V35 and V36, tubing branches B34-B49 (branch B39 consisting of two parts B39A and B39B), a pair of intake ports 243 and 245 which during operation are connected to sources 247 and 249 of argon and neon gas respectively, gauges 250A and 250B, a spark chamber 251, a hydrogen and oxygen retention chamber 253 containing No. 650 steel dust in a silk filter, an ion gauge 255 (which can be an RG 75K type Ion Gauge from Glass Instruments, Inc. of Pasadena, Calif.) for removing excess inert gases from the mixture, inner and outer coils of glass tubing 257 and 259 surrounding a mixing chamber 261, a focused x-ray tube 263 for subjecting the mixture flowing therethrough to 15-20 millirem alpha radiation and 120-125 millirem beta radiation, a directed cathode ray tube 265, two twin parallel magnetic coils 266 and 267, and a focusing magnetic coil 269. It is important that coils 266 and 267 be immediately adjacent mixing chamber 261. And (see FIG. 17D) the mixer also comprises three more ionizing heads 271, 273 and 275, two entry ports 277 and 279 which during

operation are connected to sources 281 and 283 of krypton and xenon respectively, gauges 284A and 284B, a high frequency discharge tube 285, a twin parallel magnetic coil 287 surrounding a polarizer 289 for polarizing the argon, said polarizer containing fine steel particles which are polarized by coils 287 and which in turn polarize argon, a second hydrogen retention chamber 291, a pair of tubing branches B50 and B51, two filters 293 and 295 and a plurality of valves V47-V59, valves V57 and V59 being quality control and exhaust valves.

Inner and outer glass tubing coils 257 and 259 and mixing chamber 261 are shown in cross section in FIG. 18. Intermediate glass coils 257 and 259 are two magnetic coils 297 and 299 having an inductance of approximately 130 mH. A yoke coil 301 is semicircularly disposed around mixing chamber 261. Inside mixing chamber 261 are located a pair of screens 303 and 305, insulators 307 and 309, and a pair of spark gaps indicated generally at 311 and 313. A high frequency amplitude modulated source provides 120 V ac., 60 Hz, 8.4 amp, 560 watt, 27,120 to 40,000 MHz.+-.160 KHz current via heavily insulated wires 315 and 317 to the chamber. These wires are about twelve gauge, like those used as spark plug wires on internal combustion engines. Additionally 95 V direct current is supplied thereto via a smaller (e.g. sixteen to eighteen gauge) insulated wire 319. As described below, the gases to be mixed and prepared flow through chamber 261 and are suitably treated therein by the action of the various fields present in the chamber.

The magnetic coils, ionization heads, and pump 217, along with the required electrical interconnections, are schematically shown in FIGS. 19A-19E. More particularly, heads 239 and 241 are shown in FIG. 19A, as is pump 217. Each ionizing head has two electrodes with a gap therebetween to cause ionization of gases flowing through said head, the electrodes being connected to a source of electrical power. Pump 217 is directly connected to a source of power (either a.c. or d.c. as required by the particular pump being used). The connections between the circuitry on FIG. 19A and that on FIG. 19B are shown as a plug 321, it being understood that this plug represents a suitable one-to-one connection between the lines of FIG. 19A and those of FIG. 19B.

The remaining ionizing heads and all the magnetic coils are shown in FIG. 19B. For clarity, the coils are shown in an unconventional form. Quadruple coil 237 (shown at the top of FIG. 19B) has one side of each winding connected in common but the other sides are connected to different lines. Coil 223 consists of two windings in parallel. Coils 297 and 299, the ones around the mixing chamber, are shown overlapping, it being understood that coil 297 is actually interior of coil 299. Yoke coil 301, as shown, extends half-way from the bottom to the top of coils 297 and 299. Twin parallel magnetic coils 267 are connected in parallel with each other, both sides of focusing coil 269 being connected to one node of coils 267. Likewise coils 287 are connected in parallel. The connections between the lines of FIGS. 19B and those of FIGS. 19C and 19D are shown as plugs 323 and 325, although other suitable one-to-one connections could certainly be made. FIG. 19C shows the interconnecting lines between FIGS. 19B and 19E. A plug 327 or other suitable one-to-one connections connects the lines of FIGS. 19C and 19E.

A plurality of power sources, like the above-mentioned Variacs, of suitable voltages and currents as well as a plurality of relays 329, and plugs 331 are shown on FIGS. 19D and 19E. The connections between these two Figs. is shown as a plug 333. It should be appreciated that the Variacs can be adjusted by the operator as necessary to supply the desired voltages to the aforementioned coils and ionizing heads. It should also be realized that the desired relays can be closed or opened as needed by connecting or disconnecting the two parts of the corresponding plug 331. That is, by use of plugs 331, the operator can control the energizing of the ionizing heads and magnetic coils as desired. Plugs 331 are also an aid in checking to ensure that each component is in operating condition just prior to its use. Of course, the manipulation of the power sources and the relays need not be performed manually; it could be automated.

The remaining circuitry for the mixer is shown on FIGS. 20A-20F. For convenience, plugs 335, 337,

339, 341, 343, 345 and 347 are shown as connecting the circuitry shown in the various Figs., although other suitable one-to-one connections may be used. The chassis of the apparatus is shown on these Figs. in phantom and is grounded. The power supply for the apparatus is shown in part on FIGS. 20A and 20D and includes an input 349 (see FIG. 20D) which is connected to 120 V, 60 Hz power during operation and an input 351 which is connected to the aforementioned high frequency generator or some other suitable source of approximately 27,120 MHz current. The power supply includes a pair of tuners 353, numerous RLC circuits, a triode 355, a pentode 357 with a ZnS screen, a variable transformer 359, an input control 361, a second variable transformer 363 (see FIG. 20A) which together with a filter 365 forms a 2.0 volts (peak-to-peak) power supply 367, a pentode 369, a variable transformer 371, and a resistor network indicated generally at 373. Exemplary voltages in the power supply during operation are as follows: The anode of triode 355 is at 145 V, the control grid at 135 V and the cathode at -25 V. The voltage at the top of the right-hand winding of transformer 359 is -5 V. The anode of pentode 357 is at 143 V, the top grid is grounded (as is the ZnS screen), the bottom grid is connected to transformer 359, and the control electrode is at 143 V. The input to supply 367 is 143 volts ac while its output, as stated above, is 2 V (peak-to-peak). The anode of pentode 369 is at 60 V, the grids at -1.5 V, the control electrode at 130 V, and the cathode is substantially at ground. And the output of resistor network 373, labelled 375, is at 45 V.

Also shown on FIG. 20D is spark chamber 251. Spark chamber 251 includes a small amount of thorium, indicated at 377, and a plurality of parallel brass plates 379. When the gases in the mixer reach the proper ionization, the alpha particles emitted by the thorium shown up as flashes of light in the spark chamber.

Turning now to FIG. 20B, ionizing and filtering unit 215 includes a pair of conductive supports 381 for a plurality of conductors 383, said supports and conductors being connected to a voltage source, an insulative support 385 for additional conductors 387, and a ZnS screen 388 which emits light when impurities are removed from the gaseous fuel mixture. Unit 215 also includes a second set of interleaved conductors indicated generally at 389, a cold-cathode tube 391, and an x-ray tube indicated generally at 393. Also shown on FIG. 20B is an RLC network 395 which has an output on a line 397 which is at 35 V, this voltage being supplied to the x-ray tube.

High frequency discharge tube 255 (see FIG. 20C) has a conductive electrode 399 at one end to which high frequency current is applied to excite the gases in the mixer, and an electrode/heater arrangement 401 at the other, a voltage of 45 V being applied to an input 402 of said tube. It is desirable that a small quantity of mercury, indicated at 403, be included in tube 225 to promote discharge of the helium gas. Magnetic coils 237 have disposed therein a pair of generally parallel conductors 405 to which a high frequency signal is applied. When gas flows through coils 237 and between parallel conductors 405, therefore, it is subjected to the combination of a DC magnetic field from the coil and high frequency waves from the conductors, which conductors act as transmitting antennas. The resulting high frequency magnetic field causes the atoms to become unstable, which allows the engine to change a given atom's quantum level with much less input power than would normally be required. The volume of each gas atom will also be smaller. Also shown on FIG. 20C is non-directed cathode ray tube 227. The grids of tube 227 are at 145 V, the control electrode is at ground, while the anode is at 35 V to 80 V (peak-to-peak). The purpose of non-directed cathode ray tube 227 is to add photons to the gas mixture. To generate these photons, tube 227 has a two layer ZnS coating indicated generally at 407. Chamber 261, described above, is also shown schematically on FIG. 20C, along with an RLC network 409.

The power supply for the mixer (see the lower halves of FIGS. 20E and 20F) also includes two pentodes 411 and 413, a transformer 415, and a diode tube 417. The control electrode of pentode 411 is at 5 V to 40 V (peak-to-peak), the grids are at 145 V, the anode is at 100 V, and the cathode is at 8 V to 30 V (peak-to-peak). The control electrode of pentode 413 is at 115 V, while its grids and cathode are at -33 V. The anode of tube 413 is connected to transformer 415. Also shown on

FIG. 20E are a relay 419 associated with ion gauge 255, and focused x-ray tube 263 associated with ionization head 240. The upper input to tube 263 is at 45 V to 80 V (peak-to-peak).

Turning to FIG. 20F, there is shown tubes 265 and 285. Directed cathode ray tube 265 is a pentode connected like tube 227. High frequency discharge tube 285 includes a phosphor screen and is connected to a high frequency source. Also shown on FIG. 20F is a triode 421 with its anode at 30 V, its cathode at ground, and its control grid at -60 V; a pentode 423 with its anode at 135 V to 1000 V peak to peak, its cathode at ground, its control electrode at 143 V, its grids at 20 V; and a transformer 425. It should be understood that various arrangements of electrical components other than those described above could be designed to perform the same functions.

The operation of the mixer is best understood with reference to FIGS. 17A-17D and is as follows: Before and during operation, the mixer, and particularly chamber 261 is kept hermetically sealed and evacuated. To begin the mixing process, helium is admitted into the mixer via intake port 203. Then a vacuum is again drawn, by a vacuum pump (not shown) connected to valve V38, to flush the chamber. This flushing is repeated several times to completely cleanse the tubing branches of the mixer. The mixer is now ready. The ionization heads next to mixing chamber 261 are connected to a voltage corresponding to approximately 36% of the calculated total ionizing voltage, dc current is allowed to flow through magnetic coils 297 and 299 around chamber 261, and high frequency current is allowed to pass through the mixing chamber. Helium is then slowly admitted, via port 203, into the mixer. From port 203, the helium passes through ionization head 219 into glass tubing coil 259. This glass coil, being outside magnetic coils 297 and 299, is in the diverging portion of a magnetic field. The helium slowly flowing through glass coil 259 is gently excited. From coil 259, the helium flows through branch B45 to ionization head 275 and from there, via branch B28, to ionization head 229 (see FIG. 17B). From head 229, the gas flows through non-directed cathode ray tube 227 to high-frequency discharger 225. The high frequency discharger 225, with heating element, discharges, separates or completely neutralizes the charge of any radioactive and/or cosmic particles that are in the helium atom in addition to the protons, neutrons and electrons. The gas exits discharger 225 via branch B26 and passes to high-frequency discharger 285. The high frequency discharger 285, without heating element, disturbs the frequency of oscillation which binds the gas atoms together. This prepares the helium atoms so that the electrons can more easily be split from the nucleus during the excitation and ignition process in the engine. Discharger 285 includes a phosphorus screen or deposit (similar to the coating on a cathode ray tube) which makes discharges in the tube visible. From discharger 285, the helium passes through directed cathode ray tube 265 and focused x-ray tube 263. Directed cathode ray tube 265 produces cathode rays which oscillate back and forth longitudinally underneath and along the gas carrying tube. Thereafter the helium passes successively through branch B21, ionization head 221, branch B23, twin parallel magnetic coil 266, and branch B25 into mixing chamber 261. Helium flows slowly into and through apparatus 201. The helium atoms become ionized as a result of excitation by magnetic force, high frequency vibrations and charge acquired from the ionization heads. When sufficient helium has entered the apparatus, the ionization energy (which is approximately 36% of the total) is totally absorbed. A spectroscopic flash of light in the mixing chamber signals that the precise, proper quantity of helium has been allowed to enter. The entry of helium is then immediately halted by the closing of valve V3.

The next step in preparing the fuel is to add neon to the mixture. The potential on the relevant ionization heads, particularly head 241 (see FIG. 17C), is raised by the addition of approximately 26% which results in a total of approximately 62% of the total calculated potential and valve V31 is opened, thereby allowing neon to slowly enter the mixer via port 245. This gas passes through branch B36, ionization head 241, and branch B35 directly into the mixing chamber. Since the previously admitted helium is fully charged, the neon absorbs all of the increased ionization potential. As soon as the neon acquires the additional charge, a spectroscopic flash of light occurs and the operator closes valve V31.

In the same manner, the potential on the ionization heads is increased by the addition of approximately 17% for a total of approximately 79% of the total calculated potential and then valve V30 is opened to admit argon into the mixer via port 243. This gas passes through branch B34, ionization head 239, and branch B33 into mixing chamber 261. Again, when the proper amount of argon has been admitted, it emits a spectroscopic flash of light and the operator closes valve V30. Next, the potential on the ionization heads is increased by the addition of approximately 13% to result in a total of approximately 92% of the total calculated potential and valve V58 (see FIG. 17D) is opened to admit krypton into the system. The krypton gas passes through branch B51, ionization head 271 and branch B48 into chamber 261. Upon the emission of a spectroscopic flash of light by the gas, the operator closes valve V58. Finally, the potential on the ionization heads is increased by the addition of approximately 8% which brings the ionization potential to the full 100% of the calculated ionization voltage and valve V56 is opened to admit xenon into the mixer via port 279. This gas passes through branch B50, ionization head 273 and branch B47 to the mixing chamber. When the proper amount of gas has been admitted, a spectroscopic flash of light occurs signalling the operator to close valve V56. Note that there are two filter/absorber units, labelled 253 and 291. Unit 253 is connected to the neon and argon inlet branches B33 and B35 while unit 291 is connected to the krypton and xenon inlet branches B47 and B48. These two units absorb hydrogen residue and immobilize the water vapor created when the pump circulates the gases and generates vacuum states.

After all the gases are admitted in the desired proportions, all the valves are closed. (The mixture in the mixing chamber and in the adjacent tubing is at one atmosphere pressure at this time.) Once this is done, the interval valves of the system are all opened (but the inlet and outlet valves remain closed) to allow the mixture to circulate throughout the tubing as follows: branch B44, magnetic coils 267 and 269, ionization head 240, branch B29, ionization head 231, branch B24, ionization head 219, pump 217, branches B15 and B39A, ionization gauge 255, branches B38 and B42, ionization head 275, branch B28, ionization head 229, non-directed cathode ray tube 227, quadruple magnetic coil 272, ionization head 221, branch B23, twin parallel magnetic coil 266, branch B25 and mixing chamber 261. When this circuit is initially opened, the pressure of the mixture drops 40-50% because some of the tubing had previously been under vacuum. Pump 217 is then started to cause the gases to be slowly and evenly mixed.

Because of dead space in the tubing and the reaction time of the operator, it may occur that the proportions of the gases are not exactly those set forth above. This is remedied during the circulation step. As the gas flows through ionization gauge 255, excess gas is removed from the mixture so that the correct proportions are obtained. To do this the grid of gauge 255 is subjected to 100% ionization energy and is heated to approximately 165.degree. F. This temperature, 165.degree. F. is related to xenon's boiling point of -165.degree. F. in magnitude but is opposite in sign. Xenon is the heaviest of the five inert gases in the mixture. As the gas mixture flows through ionization gauge 255, the gas atoms that are in excess of their prescribed percentages are burned out of the mixture and their charge is acquired by the remaining gas atoms from the grid of the ionization gauge. Because the gases are under a partial vacuum, the ionization gauge is able to adjust the gas percentages very precisely. (Note: The steps described in the last two paragraphs are repeated if the finished gases are rejected in the final quality control step described infra.)

The next step involves purifying the mixture so that only the five inert gases remain, absorbing any free electrons and regulating the electrical charge in the mixture. To do this, the circuit consisting of the following components is opened: Branch B44, magnetic coil 267, magnetic coil 269, ionization head 240, branch B29, ionization head 231, branch B24, ionization head 219, pump 217, branches B15 and B39, magnetic coil 287 (see FIG. 17D) polarizer 289, branch B17, ionizing and filtering unit 215, branches B16, B42, and B41, x-ray tube 263, branch B21, ionization head 221, branch B23, magnetic coil 266, branch B25, and mixing chamber 261. The gases should complete this circuit at least three times.

The last step required to prepare the mixture for bottling is polarization of the argon. The circuit required to do this consists of the following components: mixing chamber 261, branch B44, magnetic coil 267, magnetic coil 269, ionization head 240, cathode ray tube 265, branch B40, tubing coil 257, branches B49 and B30, ionization head 231, branch B24, ionization head 219, pump 217, branches B15 and B39, twin parallel magnetic coil 287 (see FIG. 17D), polarizer 289, branch B17, ionizing and filtering unit 215, branches B16, B42 and B20, ionization head 229, cathode ray tube 227, magnetic coil 237, ionization head 221, branch B23 and magnetic coil 266. This too is repeated at least three times. The key to the polarization of argon is polarizer 289 and twin parallel magnetic coil 287 that encircles it. Polarizer 289 is a glass bottle which is filled with finely powdered soft iron which can be easily magnetized. The filled bottle is, in effect, the iron core of the coils. The iron particles align themselves with the magnetic lines of force, which lines radiate from the center toward the north and south poles. The ionized gas mixture is forced through the magnetized iron powder by means of pump pressure and vacuum, thereby polarizing the argon gas. Filters 293 and 295 are disposed as shown in order to filter metallic particles out of the gas.

The mixture is now double-checked by means of spark chamber 251 at atmospheric pressure since the fusion reaction in the engine is started at one atmosphere. Because the gases in mixing apparatus 201 are at a partial vacuum, sufficient gases must be pumped into spark chamber 251 to attain atmospheric pressure. To do this valves V33, V36 and V40A are closed and circulating pump 217 pumps the gases in the mixing apparatus via branches B15 and B39A, through check valve V39A into spark chamber 251 until the vacuum and pressure gauge 242 indicates that the gases within spark chamber 251 are at atmospheric pressure. Valve V34 is then closed. The spark chamber is similar to a cloud chamber. Six or more high capacity brass capacitor plates are spaced 1/8" to 1/4" apart in the chamber. A small plastic container holds the thorium 232. One side of the chamber is equipped with a thick glass window through which sparks in the chamber may be observed. A potential is placed on the brass plates in the chamber and the current flowing between the plates is measured. If this current exactly corresponds to the ionization current, the mixture is acceptable. A difference of greater than 5% is not acceptable. A lesser difference can be corrected by recirculating the gas in the mixer and particularly through ionization gauge 255 as previously described in the circulation step. A second test is then given the gases that pass the first test. A calculated high frequency current is gradually imposed on the spark chamber capacitor plates. This excitation causes neutrons to be emitted from the thorium 232 which, if the mixture is satisfactory, can be easily seen as a thin thread of light in the chamber. If the mixture is not satisfactory, light discharges cannot be seen and the high frequency circuit will short out and turn off before the desired frequency is reached.

To bottle the mixture, valve V33 is opened and valves V36 and V40 are closed. During bottling polarizer 289, twin parallel magnetic coil 287, ionization unit 215 and ion gauge 255 are electrically energized (all electrical circuits are previously deenergized) to improve the stability of the mixture. The prepared gases are withdrawn from the mixing apparatus via branches B24 and B16, ionization unit 215, branch B17, filters 293 and 295, polarizer 289, twin parallel magnetic coil 287, branch B39, ion gauge 255, check valve V39A, branch B38 and spark chamber 251. If desired, after bottling the mixer may be exhausted by opening valves V12, V13, V14, V23, V24, V29, V32, V57 and V59. Of course, one can also automate the fuel preparation process to be continuous so that it would never be necessary to exhaust the gas.

In operation of mixing apparatus 201, certain operational factors must be considered. For one, no electrical devices can be on without the pump being in operation because an electrical device that is on can damage adjacent gas that is not circulating. For another, it should be noted that directed cathode ray tube 265, non-directed cathode ray tube 227 and focused x-ray tube 263 serve different functions at different points in the mixing process. In one mode, they provide hot cathode radiation, which can occur only in a vacuum. When gases are flowing through these devices, they provide a cold cathode discharge. For example, during argon polarization and the circulation step, focused x-

ray tube 263 is under vacuum and affects the gases flowing through ionization head 240 by way of hot cathode radiation. During the introduction of the different gases into mixing apparatus 201 and during the recirculation step, the gases are flowing through focused x-ray tube 263, which affects the gases by way of a cold cathode discharge.

It is preferred that each switchable electrical component in mixing apparatus 201 be wired into a separate circuit despite the fact that one of the poles of each could be commonly wired. In a common ground circuit if one device is turned on, all of the other units may also turn on because the gases in the device are conductive. In addition, if one unit on a common circuit were energized with high frequency current, the others would also be affected. In the same vein, the high frequency current cannot be used when the cathode ray tubes, the x-ray tubes or the dischargers are heated and under vacuum because the heater filaments will burn out.

Finally, the current source, the variable rectifiers and the electrical measuring instruments must be located more than ten feet from mixing apparatus 201 because the high frequency current is harmful to the rectifiers, causing them to burn out or short out.

It is hoped that a brief summary of the concepts used by the inventor in developing the above invention will be helpful to the reader, it being understood that this summary is in no way intended to limit the claims which follow or to affect their validity. The first concept is that of using an inert gas mixture at approximately one atmosphere at TDC (at ignition) as a fuel in a thermonuclear energy production process. The second concept is the layering of the various inert gases, which layering is designed to confine the input energy in the innermost layers during pre-excitement and ignition, to provide thermal insulation for the container walls during and after ignition, to transmit power resulting from the ignition through the layers in turn to the piston, to absorb the pressure generated during ignition to protect the cylinder walls, and to provide an orderly, predictable positioning of the argon layer during the BDC to TDC portion of the engine cycle. The third concept of this invention involves utilizing electric current produced in one cylinder of a pair to perform functions in the other cylinder of that pair. This concept includes the sub-concepts of generating electric current by atomic recombination and of electric generation in place resulting from the rotation of layered inert gases within each cylinder because of the changed polarity of the encircling coils at BDC, from judicious placement of coils which produce magnetic field lines which are cut by a near perfect conductor (polarized argon), and from movement of said near perfect conductor through the magnetic field.

The fourth and fifth concepts of this invention are the transformation of rapid, intense, but short duration thermonuclear reactions into pressure that is transmitted from inert gas to inert gas until it creates linear kinetic energy at the piston, which energy is converted into rotary kinetic energy by a crankshaft, and the use of a shaft-driven generator to provide power to spaced field coils during the BDC to TDC portion of the cycle of each cylinder.

The sixth concept concerns adequate pre-excitement of the inert gas fuel and more particularly involves the sub-concepts of pre-exciting the fuel in the mixing process, of manipulation of the currents in the coils surrounding each cylinder, of discharging the capacitors surrounding each cylinder at predetermined times in the cycles, of causing a stream of electrical particles to flow between electrodes and a conductive discharge point on the piston, of emitting alpha, beta and gamma rays from an anode and a cathode containing low level radioactive material to the piston's discharge point, of accelerating the alpha, beta and gamma rays by the application of a high voltage field, and of situating capacitor plates 90 degrees from the anode and cathode to slow and reflect neutrons generated during ignition. The seventh concept involves the provision of a minute, pellet-type fission ignition, the heat from which causes a minute fusion as the result of the ignition chamber shape and arrangement, as a result of the collision of the alpha, beta and gamma rays and the electrical particles at a focal point in conjunction with the discharge of the capacitors that surround the cylinder through the electrodes, and as a result of increasing the magnetic field in the direction of

the movement of each piston.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As various changes could be made in the above methods, constructions and products without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What is claimed is: [Claims not included here]

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Robert Cook: US Patent # 3,683,707; "Propulsion System"
R. Cook: US Patent # 4,238,968; "Device for Conversion of Centrifugal Force to Linear Force and Motion"

Robert Cook's Website: http://www.rexresearch.com/cookip/www.forceborne.com

The Cook Inertial Propulsion Engine (December 1999) ~

Vallejo Independent Press **(Friday, February 21, 1987)**

"Meet Robert Cook: Resident Inventor"

by Marjorie Riley

Robert Cook, 47, Vallejo's "resident inventor", started "tooling around with machinery" when he was a very small boy.

It's easy to see why. His father, a civil and mining engineer, moved the family "all over the place" as he went from job to job in Texas, Nevada, and California, and in the process taught his son just about everything he knew about mathematics and machinery.

Not long ago this informally educated engineer was granted a patent by the US Patent Office for his "Device for Converting Centrifugal Force to Linear Force and Motion". More recently, he was a guest speaker at the annual dinner meeting of the National Association of Naval Technical Supervisors, Mare Island Chapter. Following the formal lecture, Cook talked "until midnight" with a dozen or so nuclear physicists and scientists who were among the audience about his invention and the book, "The Death of Rocketry" which he recently co-authored with physicist Joel Dickinson.

Pretty impressive when you learn that after graduating from Mt. Diablo High School, young Robert enrolled in engineering school, but quit not long afterwards.

"I was bored", he said, smiling at the memory. "They weren't teaching me anything I hadn't already learned from my dad. It seemed like a waste of time."

Eager to start working with machinery, young Cook became an apprentice printing pressman instead, working for the old Walnut Creek Kernel. Later he worked as first pressman on the big 150-ton Goss Urbanite offset press in Gazette Press, a Berkeley commercial printing press.

Cook is credited with eight separate inventions relating to his printing press days. "It was a good introduction to 'spin dynamics'", he said, "a concept that has fascinated me ever since."

Concerning Cook's recently published book, "The Death of Rocketry", one Association member said, "One chapter begins with an explanation of the principle behind Cook's Inertial Propulsion engine and some thoughts on how our lives will be changed when the device is perfected and in production. Another chapter deals with the controversy that Cook's device has stirred --- it creates an internal force for propulsion and therefore refutes Sir Isaac Newton's laws of motion, particularly the third one which holds that there is an equal and opposite reaction. Cook has charged Newton's laws are incorrect, thus challenging the entire foundation of physics and mechanics, of his device does work."

A news release from The Communication Process in San Francisco states: "The... [invention]... apparently contradicts Newton's third law of motion, and he (Cook) has met with severe criticism and disbelief from scientific and academic establishments. Nevertheless he (Cook) has successfully built numerous working models and is now in the process of building a flying vehicle powered by the CIP unit."

Concerning the invention, Cook himself says: "The rocket was abandoned as a serious means of propulsion shortly after its invention by the Chinese in 1214 AD. Although in recent years the rocket has been revived by the industrialized nations of the world, the extremely low efficiencies involved -- 2% or less -- make it a less-than-satisfactory method of travel, especially for outer space applications. Clearly, of mankind wishes to make significant advance in the exploration of space, an alternative and more efficient means of propulsion must be developed.

"The Cook Inertial Propulsion (CIP) engine provides the new technology needed for a major step forward in space exploration. The CIP engine is not a new energy source, but a tested and proven method of converting Coriolis and centrifugal forces into linear thrust. The result is a reactionless propulsive system powered by conventional energy sources which is expected to yield efficiencies in the range of 80-85% when fully perfected."

"The Conversion of Centrifugal Force Into Linear Force and Motion"

by Robert Cook

Years ago, Albert Einstein remarked:

"When first studying mechanics, one has the impression that everything in this branch of science is simple, fundamental and settled for all time. One would hardly suspect the existence of an important clue which no one noticed for 300 years. The neglected clue is connected with one of the fundamental concepts of mechanics --- that of Mass."

And now, with the discovery of the CIP engine mechanical principle, which has been followed by the successful demonstration of many CIP engine prototypes, another neglected clue in the field of

mechanics has been found --- that of an internal, reactionless force which can be produced by converting centrifugal force into a linear thrust.

Science in general has considered centrifugal force a "pseudo force" incapable of affecting motion to any great degree. "Bounded motion" is all centrifugal force was considered capable of producing. I will show that a constant linear force can be produced by centrifugal force when properly controlled.

I will limit my comments on Newtonian Law to his 3rd law of motion regarding action and reaction because my work deals with reactionless force systems deemed unworkable by this 3rd law.

Background of the Experiments ~

In my early experiments starting February 1968, I had originally started to search for a new energy source based on a combination of forces, i.e., gravity, magnetism, and centrifugal force. An error I made in design resulted in the discovery of a new method of propulsion and ended (temporarily) my search for a new energy source. The early system utilized a Coriolis Effect to create the propulsive effect, but it was highly inefficient (about 1%).

A report, "D-71-77" dated 11-11-71 prepared by the engineering staff of United Airlines Test Center in San Francisco, concluded that although highly inefficient, the system nonetheless worked in spite of Newton's laws. A series of accelerometer tests completed in late December 1972 by this same group also proved the system was producing an internal force, but also showed poor efficiency.

After numerous attempts to improve the efficiency of that system which was granted US Patent # 3,683,707, I decided in late 1974 to look for another more efficient method to create unidirectional force.

The series of tests concluded in a 6-month span in 1974 had given me three clues on how to do this, and they were:

1. The system would require counter-rotating rotors.
2. The system would require a series of flexible drive shafts for the rotors.
3. A positive control for the inertia of the propellant mass would be needed.

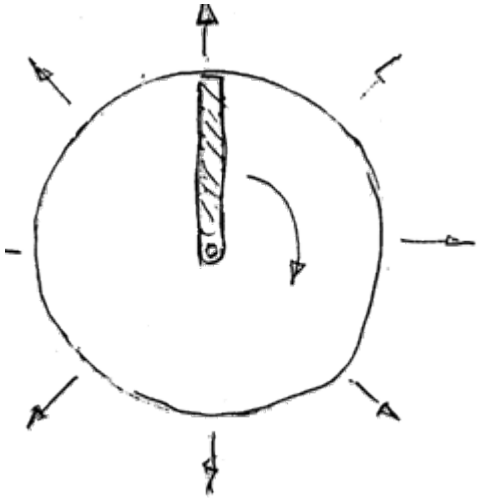
The fourth and final clue would be sound in November of that year. This last clue dealt with the splitting and transferal of the propellant mass.

How the CIP Works ~

In order to understand the reasons for the formerly mentioned series of mechanical actions, we must analyze the effects of unbalanced spinning rotors on wheels in effecting motion.

If we build an unbalanced rotor resembling a one-bladed aircraft propeller (Fig. 1), and spin it in a horizontal plane, it will tend to cause a gyrating force or a force in all directions in that horizontal plane.

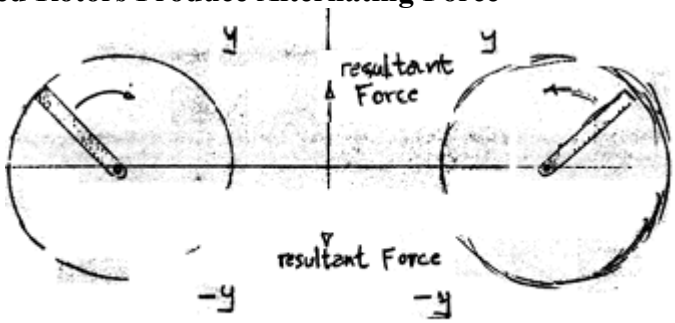
Fig. 1: Unbalanced Rotor ~ ***



(Fig. 1) Unbalanced Rotor

In order to control gyration, we need counter-rotation and synchronization, so if we take two counter-rotating unbalanced rotors and spin them together (Fig. 2), the gyration will become an oscillation or it could be called an alternating force similar to AC current.

Fig. 2: Two Unbalanced Rotors Produce Alternating Force ~ ***



(Fig. 2) 2 Unbalanced Rotors Produce Alternating Force

If the unbalanced centrifugal force is plotted on a graph, it will show a regular sine wave exactly as a single phase alternating current.

If we are to propel with this force, we must rectify it by causing a multiple spin.

The multiple spin is needed in order to effect the "energy state" of the propellant mass. This amounts to an orbit and a spin for the propellant mass.

The reason for this is best shown by analyzing a 2-bladed helicopter rotor.

If a helicopter is not moving through the air, but is sitting on the ground with the rotor spinning at a high speed, and the blade tips are moving at say 300 mph, this velocity will remain the same relative to the environment all around the circle of rotation. If we, some way, could cause the rotor tips to fly off at the 9 o'clock and 3 o'clock positions simultaneously, then the tips would leave in a tangent or straight line to the front and back of the helicopter and their speed would be 300 mph in two different or opposite directions. Their momentum or energy state would be identical --- the same amount of energy or resisting force would be required to stop them individually. Their energy state is the same.

If the helicopter is then flown forward at say 100 mph, something very interesting happens to the energy state of these rotor tips when they reach the 9 and 3 o'clock positions. If we view the rotor

from the top and see it rotating clockwise, the following will become obvious when the helicopter is moving at 100 mph.

1. The rotor (A) at the 9 o'clock position will be moving through the air at 400 mph while rotor B at the 3 o'clock position will move at 200 ph through the air (Pilots must consider the advance ratio of the 'copter blades or it goes out of control.).

2. If we now release the rotor tips in these same positions (3 and 9 o'clock), tip A will leave (in a tangent) at 400 mph, and tip B will leave at 200 mph. The inertial state can be determined by the momentum equation, Momentum = MV.

It's obvious that tip A with twice the velocity will have 2 times more energy and be in a higher energy state than tip B.

The point I am trying to make very clear is that when the center of rotation of 2 spinning masses arranged in this fashion is moved in a straight line (or in a circle like the upper arm of the CIP unit does), the energy state of the two masses will be affected; one mass will increase its energy state, while the other one decreases.

The rotor on the demonstration model is set like a helicopter rotor that spins in a vertical plane instead of horizontal and also orbits. This is what allows one half of the propellant mass to be transferred while in a low energy state.

The Oscillator & Nucleus ~

Once the small rotor sheds one half of its mass, the rotor goes temporarily out of balance and in order to prevent negative force impulses from causing negative effects on the overall system, the rotor is allowed to oscillate and its oscillations are controlled by a built-in Nuclear Mass which actually provides the centripetal force to make the mass, still attached to the small rotor, spin in the ideal fashion. A motion limiting slot as well as a flexible drive shaft complete the unit. Although one rotor unit works well enough to demonstrate the new principle, the ideal configuration is a 12 rotor combination with units based at 120 degree intervals. This will produce a constant force and would have the potential for vertical lift.

A 12 rotor system should be ready for testing by December of 1981.

Endorsements ~

All scientists and engineers (except for2) have endorsed the CIP principle after seeing the model.

Prof. Ching Fong (former chairman of the Physics Dept, UC Davis, and Prof. Of Solid State Physics) has analyzed the system and estimates the energy efficiency potential at 53% and a propulsion efficiency of 98%.

Prof. Durward Jackson of California State University at Los Angeles declares the system "One of the 10 greatest inventions in history".
Countless numbers of engineers have declared it the greatest invention in history!

United Air Lines Test Center & Process Engineering Report

By David Doll, et al.

Introduction ~

On 9-10-71 Robert Cook brought to UAL a device designed to convert centrifugal force into a linear thrust. In spite of being declared in violation of the laws of motion by the US Patent Office, Cook's crudely-built rig moved spasmodically across the floor.

This report provides a dynamic analysis of Cook's mechanism. The cycle demonstrated by Cooke, as well as two other cycles which offer performance improvements, are examined.

Cook's Propulsion Cycle ~

Cook set up his working model so that the propellant mass followed the path shown in Figure 3. From point 1 to point 2 the propellant mass is pinned against the end of the tract by centrifugal force. The thrust seen in tis segment is the component of centrifugal force in the direction of the cart motion. This thrust is:

(1) ***

$$T_{1\text{-}2} = m_p K\omega^2 \cos\omega t$$

where m_p is the propellant mass,

R is one half the sliding distance of the track,

ω is the angular velocity of the rotor, and t is time.

where mp is the propellant mass,
R is one half the sliding distance of the track,
W is the angular velocity of the rotor, and
T is time.

Due to Cook's positioning of the spring, the propellant mass spends more time behind the center of rotation of the track than forward of the center. Thus, the net thrust in segment 1-2 is negative.

When the propellant mass reached point 2, the spring force overcomes the centrifugal force, and the mass accelerates down the tract to point 3. During this portion of the cycle the system acts as a mechanical analogue to a rocket. The propellant mass is accelerated in the aft direction b the spring force and the resultant reaction produces a forward thrust upon the cart. In addition to this reaction force there is Coriolis force which is the inertial effect occurring when a mass is constrained to move in a straight line across a rotating body. The total thrust in segment 1-2 is:

(2) ***

$$T_{2\text{-}3} = 2KR\cos\lambda t\cos\omega t - \frac{4K\lambda\omega m_p}{2K - m_p(\lambda^2+\omega^2)}\sin\lambda t\sin\omega t$$

where K is the spring constant, and

$$\lambda = \left[-\frac{\omega^2}{2} + \frac{K}{2}\left(\frac{1}{m_p} + \frac{1}{m_0}\right) + \frac{1}{2}\sqrt{\omega^2\left[\omega^2 - 2K\left(\frac{1}{m_p} - \frac{1}{m_0}\right)\right] + K^2\left(\frac{1}{m_p} + \frac{1}{m_0}\right)^2} \right]^{1/2}$$

m_0 is the mass of the cart.

Where *K* is the spring constant, and

(3)***

(3)
$$T_{3\text{-}1} = -\frac{2}{\Delta t}\left(F_0 + \frac{m_p^2 R\omega^2}{m_0 + m_p}\right)\sqrt{\frac{R}{KR/m_0 + F_0/m_p}}\cos\omega t$$

where Δt is the time required to stop the propellant mass, and

$F_0 = KR - m_p R\omega^2$

m_o is the mass of the cart.

At point 3 the propellant mass strikes the end of the cart producing a negative impulsive force.

where delta *t* is the time required to stop the propellant mass, and:

$F_o = KR - m_pRw^2$

During this segment of the cycle the propellant is stopped at the expense of the forward momentum of the cart.

The resultant thrust on the cart for the entire cycle is shown in Figure 3. [Not Available]

A Modification of Cook's Cycle ~

A significant improvement in performance can be achieved by using viscous damping to arrest the propellant mass [i.e.: "Sorbothane"]. Not only can the large negative impulse be avoided, but by delaying the travel of the mass to the end of the track, the negative centrifugal force component can be reduced.

Cook's cycle could also be improved by the use of a constant force rather than the variable force to accelerate the propellant mass. This would increase the thrust during the ejection stroke by allowing the use of greater force and improving the timing of the stroke.

Concord Transcript **(CA): Thursday 2 December 1971**

"Concord Man Invents New Propulsion Plan"

by John Davidson

Concord resident Bob Cook, 37, has invented a new propulsion system which he says will cut air pollution and power just about anything that moves.

His only problem is that, thanks to Newton's third law, he's having a hard time finding believers.

"For every action, there is an opposite and equal reaction", said Sir Isaac Newton almost 300 years ago.

According to Cook, who is a printing pressman by trade, these few and "somewhat ambiguous" words are greatly responsible for the delay in developing his new system.

Cook says his system is a completely new way of moving cars, airplanes, etc., by converting centrifugal force into a line of "linear force".

At this state, his principle is illustrated in a small working model -- built with hand tools -- that resembles some sort of surrealistic bicycle.

It consists of an aluminum frame, a motor, and four small rotors or "carriers".

The rotors are hollow and they have weights inside, which can slide back and forth. The motor operates a cam which pulls in springs attached to the rotors.

When the invention is started, it powers the frame forward in a series of jerks because of three

actions outlined by Cook:

The spinning of a rotor which sends the weight to one end, which multiplies the force at that end;

As the weighted end of the rotor nears the high point of its forward spin the attached string pulls it back. This generates more resistance at the high point, which results in more positive force there.

The negative centrifugal force created by the weighted end of the rotor in its backward spin is nullified by adding more rotors, which are timed so there is a minimum negative force.

Sounds simple? Not really, says Cook, but it could be put into use now if it weren't for Newton.

"Some engineers have interpreted Newton's law to say that such a mechanism will not work (because the backward spin of the rotors presumably would offset the forward spin)", Cook says. "Others say not so."

"Several small models have already been built to test the principle involved and they work", the inventor adds.

"One model was demonstrated at the University of Arizona but it wasn't endorsed because of Newton's law! The model worked but that's besides the point.

Another model was recently demonstrated at the engineering department of United Air Lines in San Francisco. There an engineer was given the job of studying the idea. His conclusion: "The system would work in outer space and might be a good substitute for helicopter rotors", Cook says. "This engineer felt that this system did not violate Newton's law."

Cook also demonstrated a model at NASA's Ames Research Center at Mt. View, but says engineers there refused to believe that the model was really propelling itself with centrifugal force since they felt Newton's law was against it.

"Like all new and really outstanding systems, this idea is being met with skepticism and this could delay its development and eventual use for several years", Cook notes.

Cook, a bachelor who has lived in Concord on and off for almost 20 years, says he has taken time off from his printing trade to work on his system and to try to promote it.

"Off and on for about the last two years I've been conducting experiments in Texas (at a relative's home)", Cook says. He moved to Concord the latest time about six months ago and has been continuing work at the home of friends.

The inventor says he struck upon the idea for his propulsion system accidentally.

"I was more or less working on a motor --- a perpetual motion experiment, just out of curiosity even though that's considered nutty. I made a mistake which put the motor out of balance. Then I realized it was foing to propel itself. It was at that time I became interested in this principle (centrifugal force)."

After that accidental discovery, Cook says he came to Oakland to see a patent attorney, and a patent search was conducted to see if someone had a similar device.

He says he filed for a patent in April 1969, but it was refused on the grounds it was contrary to the

laws of mechanics (Newton's third law).

After that, Cook refilled according to a change he had made in the design (he found he had made a slight mistake in the original). That was in October of last year, and that application is still pending.

Right now he says he is in the process of contacting business and getting media coverage.

"I'ld like to see inventor William Lear, who's working with a steam turbine of cars", the local inventor says. "I'm looking of someone to help me develop my system."

The most important use of his device would be in cars, Cook says, since it could be helpful in cutting smog.

"It can be used on just about anything that moves", he says, noting that it could be powered even by solar energy in space. "All you need is something to cause the rotors to spin."

In an actual full-sized motor, he adds, there would have to be an 18-rotor mechanism (the rotors would only have to be 8 inches long each).

He centrifugal force propulsion system is not Cook's invention -- he says it's his eighth. "Practically all of the rest dealt with the printing trade", he says. "They've all worked. But financially speaking, the inventions were too late since those types of presses were just about obsolete."

Cook, who has a high school education, says he is "more or less self taught. I'm just curious -- machinery fascinates me; it just comes second nature to me."

The inventor claims his centrifugal force system really does not oppose Newton's law. "When the frame moves, that's the reaction (in Newton's principle). This system just diverts the reaction."

Well, they doubted Copernicus and Freud too...

***Stockton Record* 79(#308); Tues., 12 Feb. 1974**

"Newton Challenged"

by June Land

Isaac Newton's third law of motion may well have been contradicted Monday afternoon in Stockton.

A contraption resembling a child's large-scale erector set model, described by its inventor as an internal propulsion device, passed its final test -- it moved forward on almost frictionless ice.

Newton's law says that for every action there has to be an equal and opposite reaction, or to put it another way -- for a body to move it must be acted on by an outside source.

"Newton made a mistake, that's all", said the inventor, Bob Cook, 39, of Pittsburg, who maintains the device will revolutionize transportation.

The device is made of counter-rotating cams and gears resting on thin blades that are powered by an electric motor, but battery or even solar power could be used, says Cook.

He explained the contraption is propelled by the so-called "phantom" Coriolis force trapped inside the rotors which results in the motion despite the absence of friction.

Webster identifies the Coriolis force as corresponding to the Coriolis acceleration of a body equal to the product of the mass by the Coriolis acceleration and responding as a result of the earth's rotation for the deflection of projectiles and the motion of the winds to the right in the northern hemisphere and to the left I the southern hemisphere.

Skeptics claimed the device would "just sit there and rock back and forth" if all friction were eliminated, said Cook.

It moved forward in short spurts Monday afternoon at Oak Park Ice Rink, however. Cook maintains the experimental model can be improved to get a more constant force by more and a better combination of rotors.

"I have definitely proven the principle is sound by doing all the tests that are required. Now I have to determine the efficiency", he explained.

Some of the tests included movement on an air cushion suspended from ropes and in a raft floating in a swimming pool.

People say it can't work because it defies the laws of nature", said the soft-spoken and rather shy inventor who admitted he has no formal education.

He was a printer for about 18 years in the East Bay area and says he stumbled on the idea for the contraption when he was experimenting with a new energy source.

"I made a mistake and came up with this."

Cook has been working on the test model for about 6n years and has invested some $50,000, according to an assistant, Joel Dickenson, 24, of Pittsburg.

Cook claims the device can be used to propel automobiles and "could even move in space" if solar power were used.

He patented the device in 1972 and the next step is to either raise capital to produce a working model or to sell the idea to a manufacturer, said Dickenson.

***The Green Sheet* 59 (#29); Friday, 8 Feb. 1974**

"Machine Challenges Newton's Law of Motion"

by Sue Shoemaker

An apparently simple, 85-pound device which Bob Cook of Pittsburg has invented may not revolutionize transportation and aerospace industries overnight -- but then again maybe it will.

Cook has spent the last six years and about $50,000 developing what he claims is a revolutionary new method of propulsion, which defies scientific laws of nature.

Despite doubts ranging from skepticism to outright disbelief on the part of scientists and engineers at Ames Research Center and United Air Lines, Cook says his device in a more sophisticated form

would be capable of solving the energy crisis and propelling any vehicle, from bicycles to space craft.

Basically, Cook's device consists of four rotors mounted in two levels on a frame. Atop each rotor is a weight which slides back and forth in a short track.

As the rotor turns forward, the weight, attached by a spring to the frame of the machine, slides forward, jerking the machine forward.

As the rotor continues its revolution the weight slides back, but because the speed of the rotor has been reduced the weight moves back with less force than it moves forward, so although the machine jerks backward, the backward jerk is weaker than the forward jerk and the net effect seems to be a slight forward movement.

The forward thrust is intermittent, occurring only when the weight slides forward once per revolution, but Cook and his assistant, Joel Dickinson, are working to improve it by making the forward thrust continuous.

Cook acknowledges the device he is now testing is a crude model, "sort of like the Wright brothers' first plane", he says with a chuckle. Although rotor ovelment is now very slow, he says it and the speed of the machine could be increased 1,000 times.

"With the help of advanced hydraulics and ball bearings, there would be hundreds of uses for it", he says.

Cook was testing the device at Buchanan Air Field in Concord Wednesday and planned to take it back to Ames later in the week. Although it is currently powered by electricity, he says one of the device's most revolutionary features is that it can run on any type of power, from steam to solar energy.

In addition, he claims the machine needs relatively little power to reach great speeds, an important factor in times of fuel shortage.

"This form of inertial propulsion could eventually be the most widely used form of propulsion. It could outrun anything we have now", he predicts.

And even of more scientific significance, Cook and Dickinson, who admitted he was an "A-1 skeptic" until he saw the machine, are sure the invention disproves Newton's Third Law of Motion, that every action has an equal and opposite reaction.

They are confident that once it is accepted by the scientific establishment the device will force a reevaluation of the basis of physics and revolutionize the entire field.

But acceptance does not seem forthcoming, although scientists at both United Airlines and Ames have been sufficiently interested in the device to test and analyze it.

Their conclusion has been that, on a theoretical basis the device should not work; that according to known scientific principles it cannot contradict Newton's Law and do what Cook believes it does.

But to David Doll, an aeronautical engineer at United, this does not entirely rule out the possibility Cook has really discovered something.

"He may have something in this invention which is not covered by simple Newton's Law analysis",

Doll says. He added according to Newtonian analysis the helicopter should never have worked.

"Maybe he's got another helicopter", he says.

According to Doll, the United scientists concluded the device would not be practical for use by the airlines. In addition to certain technical problems which would be encountered in adapting the device on a large enough scale to lift and propel planes, he says the method is substantially less efficient than current means of propulsion.

"But it's an interesting device", Dell says. I can't really see any promise for it in the industry but its fun to watch. I'm kind of rooting for him."

An Ames scientist who is familiar with Cook's work is more discouraging. While the device may have limited success on earth, it would never work in deep space, he claims.

"He's trying to violate the laws of nature and not having much success", he said. "But it might be nice as a Christmas toy for the kids."

Dr. John Trenholm, a physicist at the University of California Lawrence Laboratory at Livermore, is unwilling to be quite so strong in his skepticism.

"I have my doubts that it does what he thinks it does, but the important thing is to see if it performs and then try to explain why", Trenholm says.

And even if Cook has developed a new form of propulsion, Trenholm says, it is probably so weak that it will never prove useful in transportation.

But even limited success would be very valuable to science, he adds. "The value would not be in practical applications but in pointing out to scientists that in some small way the principles on which they base their work is wrong.

The discovery of just such an "error" years ago led to the development of the hydrogen bomb, he said.

"The scientific community is not always right", Trenholm pointed out. "There's no fundamental reason why someone in their backyard in Pittsburg can't come up with something really significant."

A former printing pressman, Cook has worked full time on his invention for the past six years. Although he has had no advanced training in engineering or physics he says he comes from a "long line of engineers and physicists".

US Patent # 3,683,707
"Propulsion System"
Robert Cook

[Figures only... Link to the complete patent -- PDF format -- at the European Patent Office:
http://l2.espacenet.com/espacenet/bnsviewer?CY=ep&LG=en&DB=EPD&PN=US3683707&ID=US+++3683707A1+I+

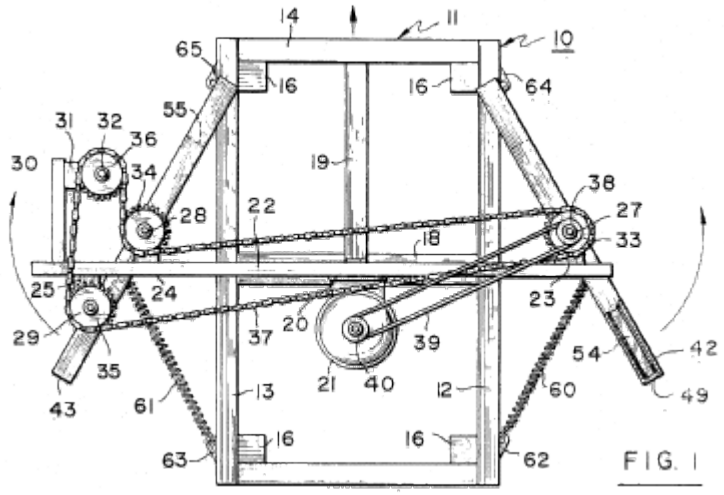


FIG. 1

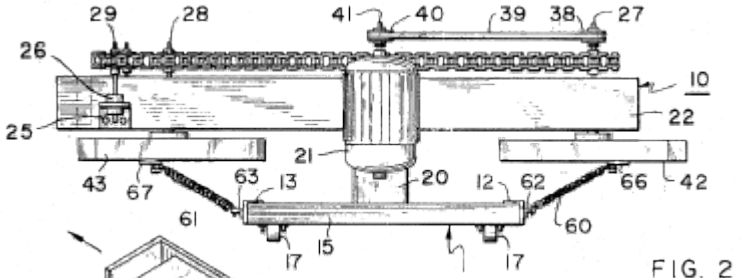


FIG. 2

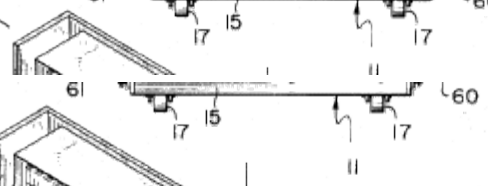


FIG. 2

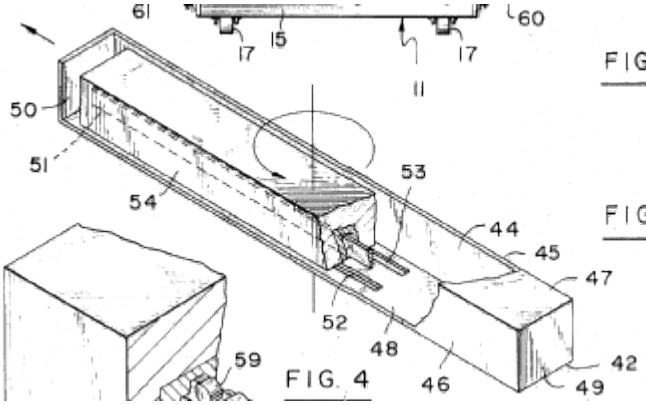


FIG. 3

FIG. 4

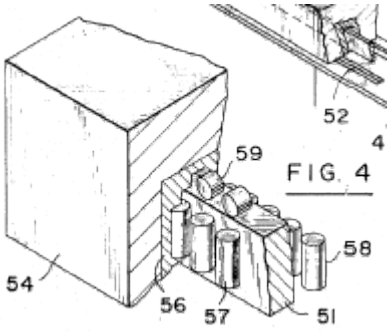


FIG. 4

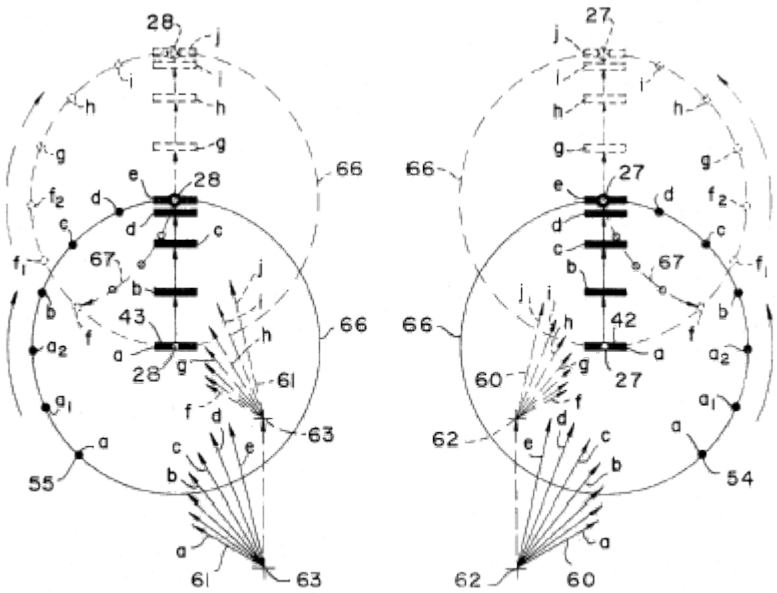


FIG. 5

US Patent # 4,238,968

Robert Cook
December 16, 1980

"Device for Conversion of Centrifugal Force to Linear Force and Motion"

Abstract ~

A device to employ centrifugal force for use as linear motion utilizing a pair of counter rotating arms about a common axle. One arm contains a mass splitable and transferable to the other arm and back again at one hundred and eighty degree intervals. The device may include a surface travel system or two of such devices may be employed in tandem for any mode of travel.

Inventors: Cook; Robert L. (605 Wilson Ave., Vallejo, CA 94590)
Appl. No.: 945245 Filed: September 25, 1978

Current U.S. Class: 74/84R; 74/84S Intern'l Class: F16H 033/20
Field of Search: 74/84 R,84 S
References Cited [Referenced By]
U.S. Patent Documents:
1,953,964 ~ Apr., 1934 ~ Laskowitz 74/84.
2,009,780 ~ Jul., 1935 ~ Laskowitz 74/84.
2,306,723 ~ Dec., 1942 ~ Floraday 268/124.
2,350,248 ~ May., 1944 ~ Nowlin 74/61.
3,555,915 ~ Jan., 1971 ~ Young, Jr. 74/84.
3,683,707 ~ Aug., 1972 ~ Cook 74/84.
3,968,700 ~ Jul., 1976 ~ Cuff 74/84.

Primary Examiner: Herrmann; Allan D. Attorney, Agent or Firm: Bielen and Peterson

Claims: [Claims not included here]

Description

BACKGROUND OF THE INVENTION

The present invention relates to a device for the conversion of centrifugal force to linear force and, therefore, linear motion. The device may be used to propel any common vehicle such as automobiles, rail cars, and marine, aviation and space carriers, and the like.

As enunciated by Sir Issac Newton, an object directed along a curved path will exert a force against the retraining or directing item. In other words, a force is produced by an object that constantly changes direction, since a change in speed or direction constitutes acceleration. As is well known, the centrifugal force is directly proportional to the mass of the object, or the radius of the circle through which the object moves, or the square of the angular velocity of the spinning object. Therefore, doubling the number of revolutions per minute of the object, will increase the centrifugal force by a factor of four (4).

Centrifugal force often expressed in the amount "times" the normal pull of gravity or "g's", may produce a surprisingly large force. For example, an object following a circular path having a radius of ten centimeters, at a rate of six hundred revolutions per minute, generates a centrifugal force which is 41 times gravity.

As can be surmised, a device that enables the transformation of the centrifugal force produced by a rotating body into a linear force, with only a modest efficiency, may be applied to any mode of vehicle travel.

In the past, various attempts have been put forth to reap the advantages of the powerful and easily generated centrifugal force by effecting such a transformation. For example, these apparatuses have rotated mass members and shifted the center of gravity relative to the axis of rotation. The result has been the development of a centrifugal force greater where the mass has shifted, than the remainder of the rotational cycle. In essence, the length of the radius of the arm has been changed. As is well known, the conservation of angular momentum would tend to correspondingly decrease the speed of the mass shifted.

As an example of a successful machine of this type, reference is made to U.S. Pat. No. 3,683,707, issued on Aug. 15, 1972, to applicant. However, machines of this type, although workable, are not efficient enough to produce the desired linear force to warrant general use.

SUMMARY OF THE INVENTION

The present invention provides a device for converting the force of a spinning or rotating mass into a linear component of force usable to propel a vehicle in a linear path.

In accordance with the present invention, a first rotating arm is provided, moving about an axis of rotation. A pair of balanced masses rotates at the terminus of the arm in a plane perpendicular to the plane of the first arm. A second arm counter-rotates about the same axis with respect to the first rotating arm and moves within a plane parallel to the plane of rotation of the first arm. A mechanism cooperative between the first and second arms permits the transfer of one of the balanced weights from the first arm to the second arm. At a selected point in the rotational path of both arms, one of

the masses transfers causing cancellation of the centrifugal force produced by the first rotating arm. The mass again transfers from the second arm to the first arm after one hundred eighty degrees of circular travel of both arms. At this point, there is a centrifugal force bias in favor of the arm having the masses which continues for another one hundred eighty degrees of arcuate travel, when compared to the prior semicircle traveled. In other words, the net result of the arm having the pair of masses is an imbalanced centrifugal force during half of the circular path of both arms.

The resultant imbalance may be transmitted into a linear uni-directional component of force by mounting both rotating arms on a rail or frictional wheel carriage.

Usage of two synchronized sets of counterrotating arms to a leg connecting both axes of rotation, necessarily eliminates the deflecting component of the centrifugal force along the axes of the counter rotating arms. In this case, the rail and frictional wheel carriage would not be required since a true linear force has been fashioned.

It is, therefore, an object of the present invention to provide a device that efficiently converts centrifugal force from rotating members into linear force and linear movement.

It is a further object of the present invention to provide a device useable as a source of motivation for any vehiclar means by the employment of rotational motion which is converted into linear motion.

It is yet another object of the present invention to provide an imbalanced centrifugal force in a given semicircle of the rotational cycle of an object and the usage of the linear components of the centrifugal force produced to propel a vehicle.

It is another object of the present invention to combine the effects of a plurality of devices producing a biased centrifugal force to cause linear motion without the necessity of frictional engagement of the vehicle with a surface of travel.

The invention possesses other objects and advantages as concerns particular features and characteristics, thereof, which will become apparent as the specification continues. For a better understanding of the invention, reference is made to the following description.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of the device with the counter rotating arms shown in phantom at the transfer points.

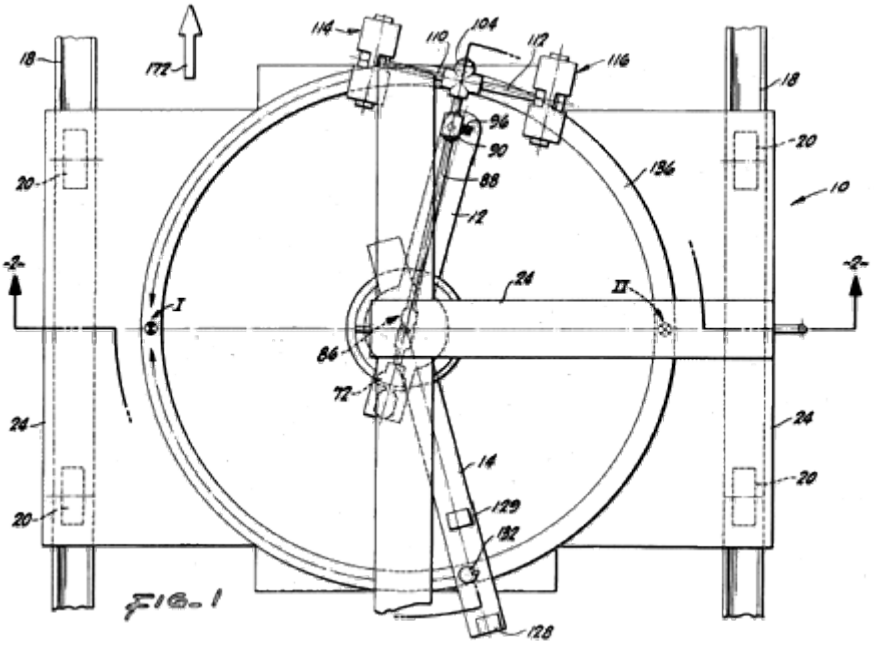


FIG. 2 is sectional view taken along line 2--2 of FIG. 1.

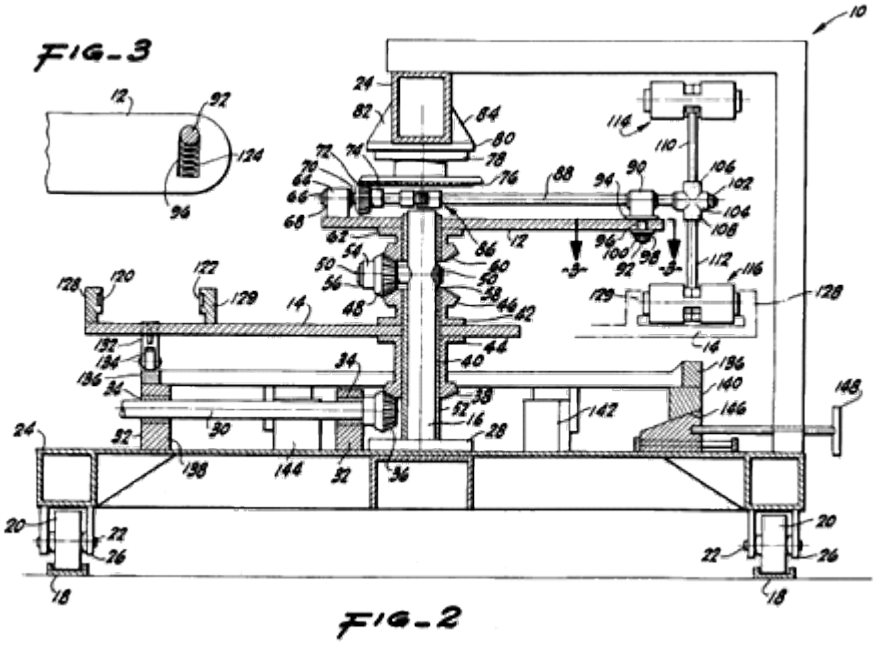


FIG. 3 is a broken sectional view taken along line 3--3 of FIG. 2.

FIG. 4 is a broken side elevational view of the mass transfer mechanism in the activated position.

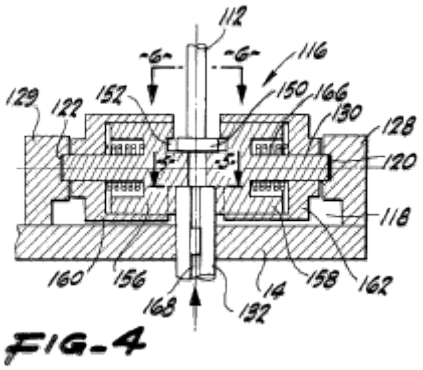


FIG-4

FIG. 5 is broken sectional view taken along line 5--5 of FIG. 4.

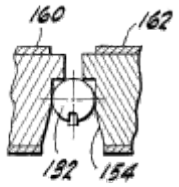


FIG-5

FIG. 6 is a broken sectional view taken along line 6--6 of FIG. 4.

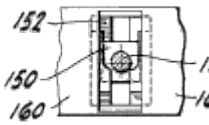


FIG-6

FIG. 7 is a broken side elevational view of the mass transfer mechanism in the deactivated position.

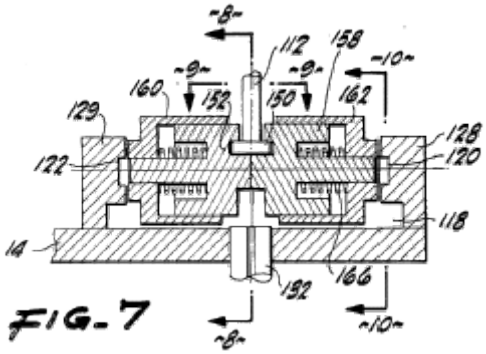


FIG-7

FIG. 8 is a broken sectional view taken along line 8--8 of FIG. 7.

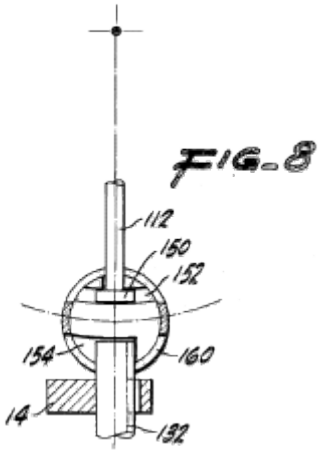


FIG. 8

FIG. 9 is a broken sectional view taken along line 9--9 of FIG. 7.

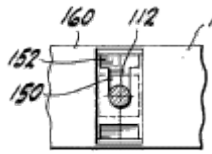


FIG. 9

FIG. 10 is a broken sectional view taken along line 10--10 of FIG. 7.

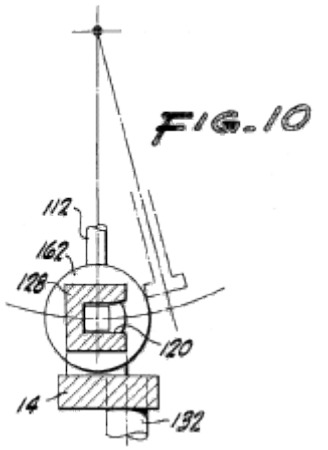


FIG. 10

FIG. 11 is a fragmentary sectional view showing a pair of devices in side-by-side connection.

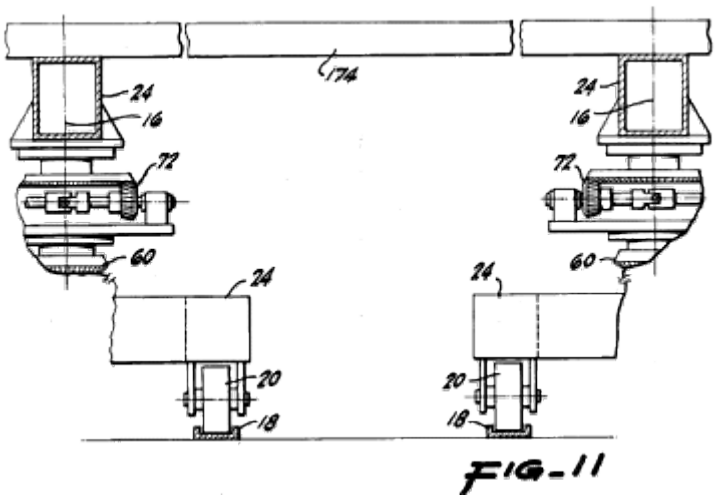


FIG. 11

FIG. 12 is a schematic view showing a pair of devices in side-by-side connection, with the connecting leg in phantom.

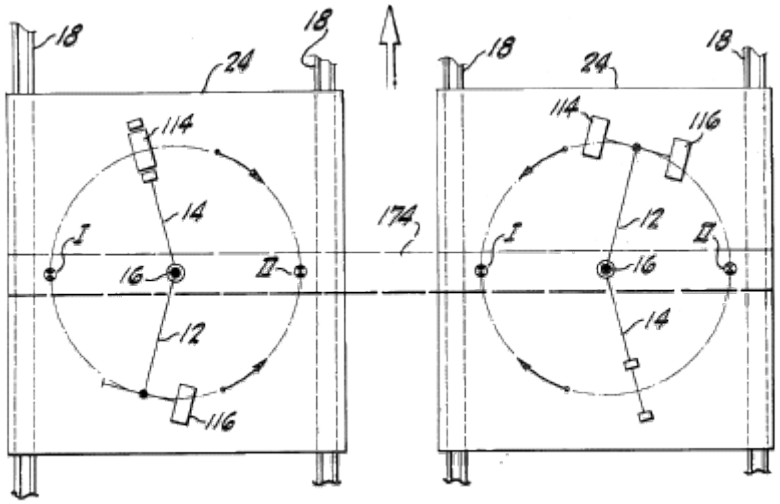


FIG. 12

DESCRIPTION OF THE PREFERRED EMBODIMENTS

With reference to the drawings, the device or apparatus as a whole is depicted in its entirety by reference character 10. FIG. 1 shows the device 10 which includes a first arm 12 and a second arm 14 which counter rotate with respect to one another about an axle 16, FIGS. 1 and 2. The circular paths of the arms 12 and 14 lie in parallel planes such that the arms are positioned in overlying alignment twice during the rotational cycle of both arms 12 and 14. As shown by FIG. 1, in partial phantom, the alignment of the two arms takes place one hundred and eighty degrees (180.degree.) apart and these positions are denoted as the "transfer points I and II", a fuller explanation of which will be hereinafter provided.

In the present embodiment, the device 10 is contemplated for use on a surface, but the device may be employed for any method of travel including travel in water, air and space media. As shown, the device 10 travels on a rail track 18 by the use of wheels rotating about spindles 22 that support frame 24, via forks 26, which are fixed by attached to frame 24 and spindle 22. The frame 24 secures to axle 16 by the use of flange 28 by any suitable means, such as welding.

With reference to FIG. 2, driving shaft 30 turns by the energy derived from any source of power (not shown). Block portion 32 and bearings 34 support shaft 30 to allow smooth axial turning of the shaft, well known in the art. Shaft 30 includes a miter gear 36, on the end nearest axle 16, which meshingly engages bevel gear 38 integral with bushing 40, which is free to slide about the bearing surface 52 circumferentially affixed to axle 16. Flanges 42 and 44 afix to arm 14 such that the rotation of bushing 40 rotates arm 14 about the axis of axle 16. The upper end of bushing 40 connects to bevel gear 46 which meshingly engages miter gear 48. Stud 50 fixedly engages axle 16 and bearing 54 circumscribes the stud 50. Miter gear 48, thus rotates about the fixed axis of stud 50. C-rings 56 and 58 prevent the movement of stud 50 and miter gear 48.

Bevel gear 60 meshingly engages miter gear 48 and rotates in the direction opposite to bevel gear 46. Flange 62, depicted as integral with bevel gear 60, affixes to arm 12 such that arm 12 rotates opposite to arm 14.

One end of arm 12 includes a bearing mount 64 which circumferentially holds shaft 66. Pin 68 positions shaft 66 within bearing 64 which has a seal 70. Miter gear 72 affixes to shoulder 74 which

surroundingly engages shaft 66. Miter gear 72 meshingly engages bevel gear 76 and turns shaft 66. Flanges 78 and 80 join to hold bevel gear in a stationary position with respect to miter gear 72. Stiffeners 82 and 84 strengthen the interconnection of flanges 78 and 80 to the frame 24.

Universal joint 86 affixes shaft 66 to shaft 88 which passes through bearing mount 90. Stub 92 affixes to base plate 94 which secures to bearing mount 90. Stub 92 passes through an arcuate slot 96 in arm 12, best depicted in FIG. 3; the purpose of which will be described in detail as the specification continues. The lower end of stub 92 is capped by washer 98 and nut 100. Stub 92 may travel within the confines of arcuate slot 96 subject to dampening by spring 124.

Shaft 88 engages bearing 102 which fits within hub 104 having wings 106 and 108. Bars 110 and 112 affix to wings 106 and 108 respectively on one end and to masses 114 and 116 on the other end. Masses 114 and 116 are preferably of equal size; mass and weight, therefore, balance one another when shaft 88 rotates bars 110 and 112 (which are of equal length) and the masses 114 and 116. The hub 104 also functions to dampen oscillations upon the transfer of one of the weights, as will be discussed in detail hereinafter. Arm 14 has a U-shaped channel 118 between partitions 128 and 129 corresponding in the width dimension to the width of mass 114 or 116. Opening 120 and 122 receive the fingers (not shown) of mass 114 or the fingers of mass 116 (only exemplar finger 130 shown) dependent upon which mass is transferred from arm 12 to arm 14.

Pin 132 rides on cam follower 134 which travels a flexible circular cam on track 136. Cam track 136 is supported by a plurality of blocks, including blocks 138, 140, 142, and 144. Block 140 includes an inclined surface having a handle structure 144 thereattached, such that the circular track 136 may be lowered to the same level at block 140 as it is at block 138.

The mechanism involved in the actual transfer of one of the masses 114 or 116 may be more clearly explained by FIGS. 4-10. As an example, mass 116 may be employed, as depicted in phantom on FIG. 2, as the transferred mass. FIG. 4, showing the mechanism in the activated position, includes bar 112 having a plate 150 which fits into arcuate channel 152. Bar 112 affixes to plate 150. The combination is capable of holding weight 116 while revolving about hub 104. As depicted by FIG. 5, the pin, when elevated by the track 136, runs through partially V-shaped channel 154.

The mass 116 includes two equal portions 156 and 158, each portion respectively enclosed by caps 160 and 162, having a slidable relationship therebetween. Finger 130 of mass portion 158 slides within openings 164 and into slot 120 when the mass 116 transfers from arm 12 to arm 14. Spring means 166 urges mass member 158 away from slot 120 while the movement of pin 132 in channel 154 urges mass member 158 toward slot 120. Mass portion 156 also includes a finger, spring means, and opening arrangement (not shown) identical to mass portion 158 such as finger 130, spring means 166, and opening 164, for use with opening 122 (FIG. 2).

Pin 132 includes a slot 168 and a key 170 in arm 14 to prevent rotation of the pin 132 in the vertical plane during transfer of the mass 116. Mass 114 contains the same mechanism as mass 116 for the purposes of the transfer, from arm 12 to arm 14, and the masses be substituted freely to perform the transfer function to evenly distribute wear and tear and the like.

In operation, the device 10 has two counter rotating arms 12 and 14 that are synchronized to vertically align at two positions within their rotational cycles, where either mass 114 or 116 transfers to and from the first arm 12. As heretofore explained, mass 116 has been arbitrarily chosen, but proper calibration may employ mass 114 in the transfer mechanism herein described.

Power from a source drives driving shaft 30 which turns miter gear 36 and bevel gear 38. Arm 14 affixed to bushing 40 rotates in a plane substantially horizontal to the axis of driving shaft 30. Bevel gear 46 turns miter gear 48 which spins bevel gear 60. Arm 12 attached to flange 62, integral with

bevel gear 60, rotates in a plane parallel to the plane of arm 14 and in an opposite direction to the path of rotation of arm 14 through gearing arrangements arms 12 and 14 vertically align at "transfer points I and II", shown on FIG. 1.

Miter gear 72 and bevel gear 76 rotate shaft 88 and turns masses 114 and 116 in a vertical plane as arm 12 rotates in a horizontal plane. At transfer point I, depicted in FIG. 2, the mass 116 fits between partitions 128 and 129, shown in phantom, of arm 14. At this point, the mass 116 the end of arm 14 has no relative motion therebetween. Just prior to that point, pin 132 enters channel 154 because of the rise in track 136 and spreads portions 156 and 158 apart. Fingers, shown by exemplar finger 130, enter openings 120 and 122, and bar 112 with affixed plate 150 rotates out of arcuate channel 152. Thus, mass 116 has been transferred to arm 14, FIGS. 4-6.

Arm 12 continues its rotation with only mass 114 for one hundred and eighty degrees to "transfer point II". It should be noted that hub 104 preferably dampens the oscillating motion produced by mass 114 on the arm 12 by being of a weight equal to the combined weight of masses 114 and 116. Likewise partitions 128 and 129 should be equal in weight to hub 104, such that the sum of the weight of masses 116 and partitions 128 and 129 equals the sum of the weight hub 104 and weight 114. Thus, the device 10 is balanced during the portion of the cycle of arm 12 between the "transfer points I and II".

With reference to FIG. 3, the stub 92 bears on spring 124 such that the oscillation force of mass 114 on arm 12 is dampened in one direction to help smooth the motion of arm 12 as it rotates.

When "transfer point II" is reached, the transfer mechanism reverses, FIGS. 7-10. Pin 132 lowers from channel 154 because of the position of track 134. Fingers, shown by exemplar 130 remove from openings 120 and 122. Plate 150 engages portions 158 and 160, FIG. 9, and mass 116 again rotates on bar 112 with mass 114.

The mechanical components of device 10 may be sealed in a vacuum with shaft 30 and handle structure 148 extending therethrough to reduce the effect of air friction on the rotating arms.

When arm 12 includes both masses 114 and 116, axle 16 receives a force along arm 12. This specifically occurs counterclockwise between "transfer point II" and "transfer point I". This linear force may be broken into two component forces, one in the direction of the arrow 172 and the other in a force horizontally disposed. The horizontal force, a deflecting force, is absorbed by the rigidity of rail track 18. Thus, device 10 moves along track 18 in the direction of the arrow 172. It should be noted that a plurality of pairs of arms identical to arms 12 and 14 may be placed on axle 16 to create a steady force in the direction of arrow 172. The device 10 alone will produce a pulse force during the time arm 12 travels from transfer point II to transfer point I. The transferring mechanism may be deactivated by pulling handle mechanism 148 and therefore the lower portion of bock 140. The sliding of the upper and lower portions of block 140 on surface 146, lower arm track 136 such that pin 132 does not enter channel 154 and transferring of mass 116 does not occur. Similarly the raising of track 136 one hundred and eighty degrees from block 146 would reverse the transfer mechanism such that the device 10 would travel in a direction opposite to arrow 172. In other words, raising the track 136 to activate pin 132 opposite block 140 would brake device 10 moving in the direction of arrow 172 or cause device 10, at rest, to move in a direction opposite to arrow 172.

Device 10 may be used with an identical device to eliminate the need for rail track 18 and its equivalent. Applicant hereby incorporates, by reference, the specification of his U.S. Pat. No. 3,683,707, issued Aug. 15, 1972, wherein applicant describes the cancellation of horizontal forces. In particular, column 8, lines 9-38, describes the resolution of forces in the Y axis and cancellation of the forces in the X axis.

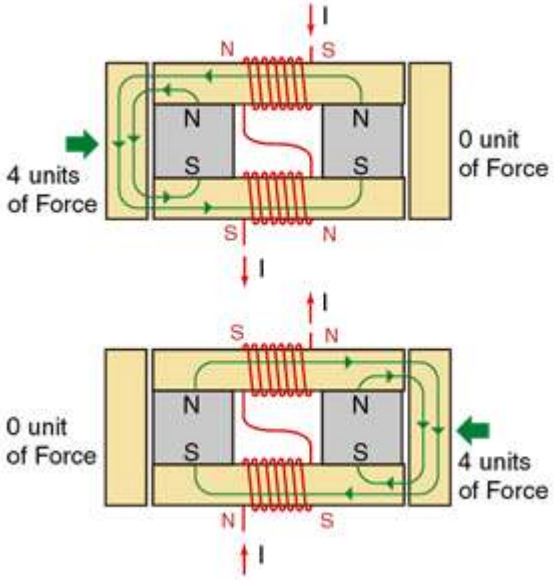
By analogy, a set of devices identical to device 10 may be placed together, preferably side-by-side, with a leg 174 connecting identical axles 16 such that identical arms 12 are located at transfer point I on the first device and transfer point II on the second device FIGS. 11 and 12.

While in the foregoing specification embodiments of the invention have been set forth in considerable detail for purposes of making a complete disclosure of the invention, it will be apparent to those of ordinary skill in the art that numerous changes may be made in such details without departing from the spirit and principles of the invention.

Da: Tigr8
Data: martedì 20 gennaio 2004 19.49
A: altraenergia@yahoogroups.com
Oggetto: [altraenergia] Parallel Path Magnetic Tecnology : un nuovo Meg?

Sull'ultimo numero della rivista nexus (47) c'è un interessantissimo articolo sulla "tecnologia magnetica a percorso parallelo di Joe Flynn" a pag 43-47.

Joe Flynn ha prodotto diversi brevetti che riguardano il magnetismo; il più importante, e che interesserà sicuramente gli appassionati del Meg, è questo :



Il circuito assomiglia, come il Meg, ad un trasformatore. Nelle figure non si vedono gli avvogimenti di uscita che vanno collocati sui due rami verticali (spostando ovviamente i magneti un po' più verso il centro).
Il circuito magnetico in giallo è costituito da normali lamierini per trasformatori (non richiede un nucleo superconduttore costoso e di difficile reperibilità).
Da notare due magneti permanenti in grigio (a differenza del Meg che ne utilizza solo uno).
L'effetto sorprendente di questo circuito è che quando la corrente delle bobine circola in un senso (prima figura) si ha un azzeramento del flusso magnetico nella parte destra ed un un flusso quasi quadruplicato nella parte sinistra. Quando la corrente scorre in senso inverso (seconda figura) si ha l'azzeramento del flusso a sinistra e la quadruplicazione a destra.

Questo principio viene utilizzato per due scopi principalmente, uno per far funzionare un nuovo tipo di motore elettrico ad alta efficenza e basso costo, l'altro per produrre free energy.

Nella seconda ipotesi, il circuito "sembra" un Meg con un magnete in più. Mentre il il Meg funziona (o per meglio dire dovrebbe funzionare) grazie alla legge di Lenz, questo circuito funziona grazie al misterioso effetto della moltiplicazione della forza magnetica.
Nella'articolo, ma anche sul sito si parla di esperimenti che chiunque può fare. Una figura mostra che con un circuito costituito da una sola calamita si riescono a sollevare 421 grammi. Applicando una seconda calamita si sollevano 1721 grammi (più di 4 volte).

Il sito di Joe Flynn è :

www.flynnresearch.net

Sul sito si parla molto del motore ma poco di un utilizzo come free energy, o forse non ho visto bene (scarso inglese).

Ciao

Tigr8

Fonte: http://www.stardrivedevice.com

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e-mail contact: office@stardrivedevice.com >>>: Official Archer *News* Page

* * * * *

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StarDrive Engineering is beautifully formatted, with many great illustrations like those on the next pages! Please feel free to examine the following excerpt from the book's extraordinary chapter on **Quantum Gravity****, in which an elegant new proposal on this exciting and key scientific topic is presented – in terms that most readers will understand. This will give you an idea not only of how comprehensive and detailed *StarDrive Engineering* is but of how hard we've worked to make it "accessible" as well - - - -> ***to order a copy now!***

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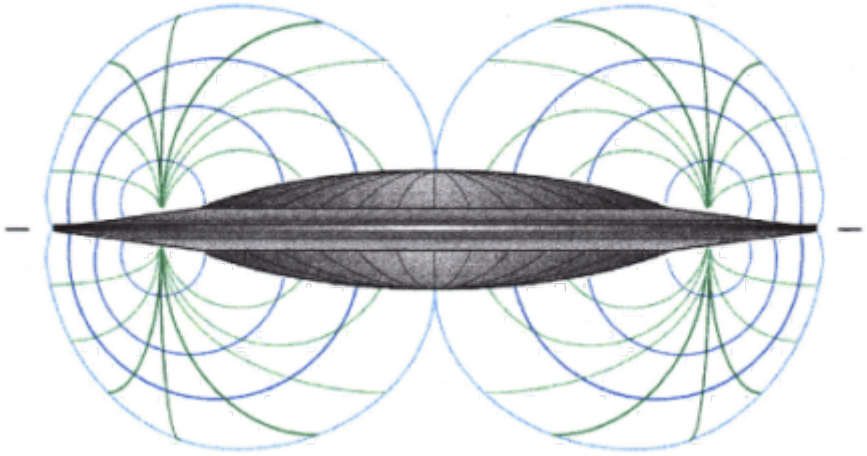
more about **electric propulsion** *more about* **generating electricity** **Table of Contents**

** for a "**warp drive**" Excerpt from Chapter 11, *The Quest for Quantum Gravity*, **click here** <

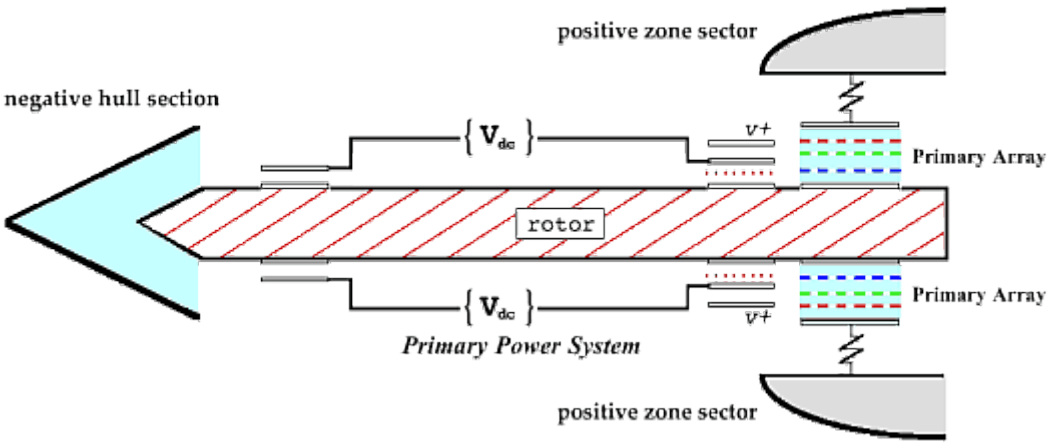
an **Electrodynamic Field Generator:**

The official name of the StarDrive 'Electronic Dynamo', per the U.S. Patent and PCT (international) Application, is *Electrodynamic Field Generator*. The EDF Generator uses banks of permanent magnets and rotating Field Coils to produce a very-high DC rotor voltage, and plane-parallel ring electrode arrays to electrostatically expand and control that voltage *as applied to the outer hull*, so that huge quantities of external Field electrons may be accelerated to energy levels that are usually achieved only with a particle accelerator! It's somewhat like a glorified arc welder whose output is deliberately shorted to its own housing, and the DC voltage and current *across the emitter and collector housing sections* can be thermionically elevated to lightning-like values**:** but the external *uniform Field current density* is limited to a value that falls short of damaging the hull!



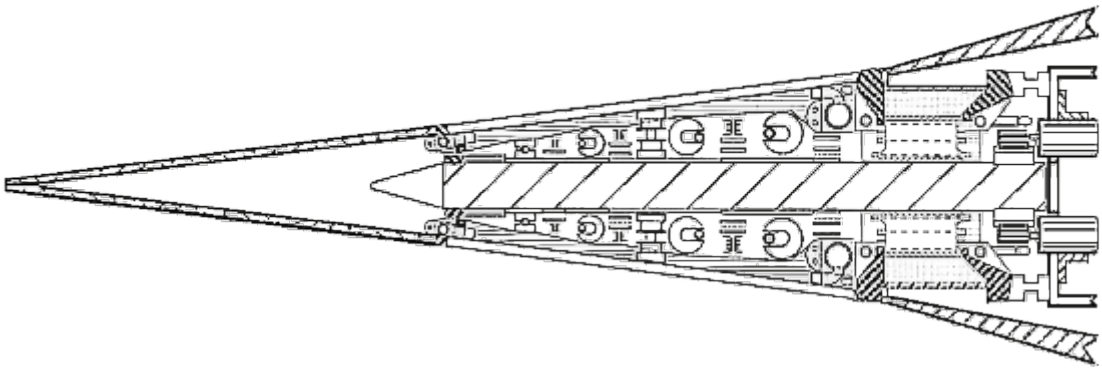
***electrodynamic* Field configuration**, showing the *crossed electric & magnetic force vectors* which give a StarDrive vessel its *metric warp field generator* capability at extreme relativistic velocity.

As illustrated above, electrons impelled along the radial electric field vectors indicated in blue can reach an impact velocity at the central collector sections which is very nearly that of light, and applied axial magnetic fields (as shown in green) allow broad modulation of the Drive Field current's properties. The *Primary Arrays* shown in the schematic diagram below have control grids which allow an electrical resistance imbalance to be imparted to two otherwise-symmetrical opposed Field hemi-currents, so they can *make the two relativistic current impulses variably non-isometric:* thereby yielding thrust that is essentially **reactionless**! And a StarDrive device's simple DC *Primary Power System*, like the early Faraday disk dynamo, *is wholly rotor-based* **. . .**



Needless to say, tremendous quantities of heat are produced in a StarDrive device's electron 'targets' or collector housing sections, and liquid sodium must be pumped through each Primary Array's ceramic resistor network as a coolant. However, this excess heat in *smaller ground-based units* may be used in the **commercial generation of electric power** and **desalinization of seawater.** In fact, because an electric discharge field has the unique capacity to absorb vast amounts of *quantum background energy*, the EDF Generator is so efficient that the latter task may become truly cost-effective for the first time! And not only will the largest *over-unity* StarDrive Dynamo units be able to output electric power at 60 to 720 megawatt output levels, they'll be able to do so for *many* years before the permanent magnet banks must be remagnetized!! *The only truly external input energy*

required in the meantime *is that necessary to initially bring the rotor up to speed . . .*



Those of you who find this advanced technological prospect for our future in the 21st century as exciting and fascinating as we do should take this opportunity to make *StarDrive Engineering* a valuable addition to your personal or reference library.

> **Table of Contents** >> for further technical info >>> **to order a copy now!**

[All book purchase proceeds contribute to our ongoing research & development program.]

Students and engineers may be assured that *StarDrive Engineering* provides a *full basic set of linearly-scalable Specifications* for the key Primary Systems of **real** starships of 40 to 100 ft. in hull diameter, and over-unity dynamos of up to 35 ft., as well as sufficient mathematical treatment to fully substantiate both the novel conceptual claims and hardware proposals made. An excellent Chapter on astrometrics and interstellar navigation is also included.

> For the **warp drive** Excerpt from Chapter 11, *The Quest for Quantum Gravity,* **click here** <

[On June 11, 2002, **U.S. Patent 6,404,089** for the ***Electrodynamic Field Generator*** was issued to Mark Tomion, author of *StarDrive Engineering*. This Patent is the first in the world for a truly *all-electric* starship propulsion system and power plant, and you may click here to link to it! Regrettably, students and engineers might be a bit disappointed to see that the *Detailed Calculations* provided at the close of the Description section, which show how the level of electrically-developed reactionless thrust is figured, are almost unrecognizable in the *online* American version.

Fortunately, the Europeans distilled a ***pdf*** copy for the EDF Generator's PCT (International) Patent Application that's photostatically identical to the original, so the math and drawings are reproduced beautifully. The Detailed Calculations are shown on pages 70–78, and the *Table of Dimensions* that describes the *'classic' flying saucer hull configuration* in purely algebraic terms is on pgs. 70–71. Therefore, if you'd like to review the PCT Application, click here.]

If your company has a serious electromagnetic propulsion question, or a major design challenge in electrostatics or applied magnetics, please contact Mark Tomion at mailto:office2@stardrivedevice.com or during our normal business hours [9 am to 5 pm (EST), Mon.– Fri.] for a free initial consultation.

Or, if ***you*** have completed a manuscript for a major work of technical nonfiction that you would like to have help in independently publishing, **click here** for further information.

{ **to top of page** ^ }

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Publisher's Note:

Some of the folks who visit our 'site may still be left wondering whether the StarDrive device as presented herein actually represents a real and viable technology or if it's merely another abstract theoretical proposal in speculative engineering. *The fact is* that *StarDrive Engineering* represents a solid triumph of scientific logic and mathematics that is virtually unimpeachable in the way it fulfills its inherent objective: to provide irrefutable proof that *real all-electric light-speed starships* can be built *today* with existing technology - and a complete set of basic specifications and instructions for doing just that!

It isn't possible here to adequately describe all of the interdisciplinary reference material and problem-solving guidelines that are also included in this one-of-a-kind book, which will be truly appreciated by students and science enthusiasts of all ages. However, the *Reader Comments* below should give a further measure of assurance to those who are seriously interested in seeing the tremendous benefits this technology could bring to our world.

Mark Tomion's Electrodynamic Field Generator is a marvelous synthesis of proven and familiar modern technologies to achieve a remarkable machine. The synergistic union of electrical dynamo and vacuum tube technologies yields a device which may result in surprising new vistas for humankind. We owe it to ourselves to build and use this machine.

Doug Derbes
Materials Engineer
Of the many problems facing humanity in the 21st century, one of the most important to address is how to keep up with the energy and living space needs of our rapidly growing population . . . However, I found a hopeful outlook on our future in the book *StarDrive Engineering* by Mark R. Tomion. It details revolutionary concepts for giving us access to the stars and for powering civilization for ages to come.
How is it that we will do this? The answer may lie in tapping the vacuum (or zero-point) energy, using the very electrons that literally surround us . . . Mr. Tomion incorporates this concept in his Electrodynamic Field (EDF) Generator stardrive design: one that could literally take us to faster-than-light speeds . . . The EDF Generator could also serve our electric power needs right here on Earth, effectively overcoming our need for fossil fuels and other potentially dangerous forms of energy.

Larry Klaes
Former Editor of *SETIQuest Magazine*
Thank you for the follow-up. Yes, I did receive my copy of *StarDrive Engineering*. I can only say . . . It is GREAT! Obviously, I'm still in the process of reading and digesting the contents. I would only suggest a few more drawings (top views) be included with the side views, to assist the reader in visualizing the concepts and what you've created. You've obviously spent a LOT of time and effort in producing this book. Thank you and please keep me informed of future developments.

Thomas Walker
Electronics Field Engineer
a.k.a. a very satisfied customer

Fonte: http://quantumgravitics.tripod.com

Quantum Electro-Gravitics

Vortex Implosion Based Propulsion Systems

Advanced Aeronautical/Space Energy Concepts

Proposal Content and Format

Project Title:

Quantum Electro-Gravitics Implo-Propulsion Systems

Principal Investigator
Robert A. Patterson

Date Jan. 18, 2004

Technology Proposal Volume I

Abstract

a. Advanced Concept Description
b. Advanced Concept Development Work Plan
c. Encompassed Fields of Research
d. Patent Applied For
e. Stage of Development

Technology Proposal Volume I

Abstract

a. Advanced Concept Description

Gravitic Unit and Power Plant

Herein disclosed this application express a multidisciplinary concept resulting in an Optically Pumped antenna based system for converting high frequency quantum electrodynamics radiation, e.g. ZPE, Light, Atoms etc... and converting same into a QEG-Implo-Propulsion system. The QEG-system includes a pair of dielectric structures positioned strategically proximal to each other, which receive incident electromagnetic radiation.

The volumetric sizes of the component structures may be tuned so that they resonate at the atomic transition frequency of the incident radiation so that secondary radiation emitted therefrom at resonance may

interfere destructively/constructively with each other producing either resonant oscillations or a beat frequency radiation which is at a frequency that is amenable to conversion to electrical and/or implosive/ propulsive energy extracted within any environment.

An antenna receives the beat frequency radiation, which is emitted from a tandem pair of reverse wave cavities. The reverse wave beat frequency radiation from the antenna is transmitted into space through a suitable conductor or wave-guide, said energy having a desired voltage and a reversed waveform such that the emitted energy returns into the system for recycling and amplification purposes .

Craft:

In an externally winged craft comprising a selectively shaped vacuum cohesive fuselage and means for providing lift and propulsion for an aircraft wherein the aircraft is constructed using a predetermined composition of high temperature superconductive ceramic material a high-k high-density dielectric ceramic capable of generating an enormous electrostatic vortex lifting force when energized in conjunction with the QEG-propulsion system and power plant whereby said system and components collectively comprise a superconductive electrical energy and implosive based propulsion system.

b. Advanced Concept Development Work Plan

To seek out and consult with engineers, to develop a fledgling R&D Company, with the idea of recruiting volunteers with respect to developing a team approach for the purpose of developing a laboratory environment conducive to further advances in the field of Quantum Electro-Gravitics as presented in this article. To seek out and obtain funding including any and all Space-Race or ZPE programs e.g.

XPrize http://www.xprize.org/ & SEAS http://www.seaspower.com/ US Gov. or Foreign funding sources.

c. Encompassed Fields of Research

To qualify as a team member applicants must have a background in one or more of the fields listed below:

Vortex Science
Electronics
Quantum Physics
Superconductivity
ZPE
QED and Cavity-QED Optics Technology
Microwave, Wave-guide and Antenna technology
Flat Transformer Technology
Free Energy Principles
Tesla Technology
Aerodynamics
Lifters Technology
Back-engineering skills
Grant Writing

Note: Entrants must be 18 years of age or older to participate.

d. Patent Applied For

Patent Pending Jan. 24, 2003

Pending Awards: Jun. 2004

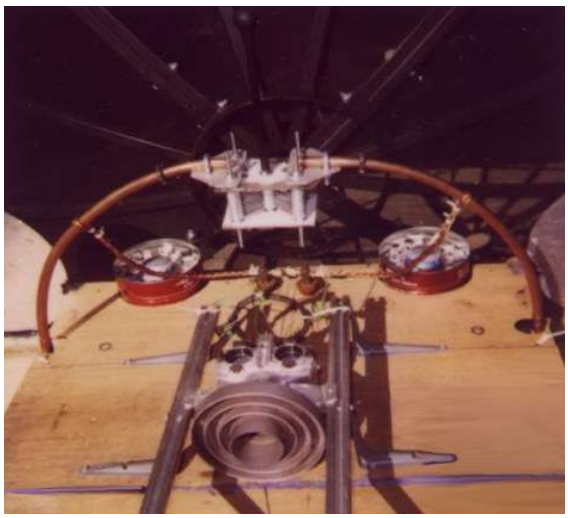
<u>Rolex for Enterprise Awards</u>

Pending Experiments

Battery powered High Voltage test of the QEG-propulsion unit

e. Stage of Development

Quantum Electro-Gravitics Implosion Based Propulsion Unit



Cavity-QED i.e. a selectively designed, Atom-Coupled Optical Waveguide, which resonates at or near the atomic transition frequency squeezes atoms out of the environment, thereby energizing a selectively designed Ferrite Bead Coil Transformer that induces a resonant rise response into the first stage amplification system comprising a:

Tesla type, lumped transmission line tank circuit spark gap transmitter, which in turn energizes the reverse wave amplification stage and gravitic propulsion system comprising:

Reverse wave radio cavities/beat frequency generators acting similar to turbo chargers, which energize a

twin set of TTBrown type plate capacitors.

Systems Impedance matching via Delta Antenna System

Cavity atoms experience significant squeezing under the influence of strong driving fields. These squeezing effects are intrinsically connected to the polarization of dressed state populations by tuning the cavity appropriately close to the atomic transition frequency we may induce a non-vanishing inversion of the dressed-state's setting the standard for optimal conditions for atomic squeezing.

In the case of an isolated two-level atom, the most important damping mechanism is a spontaneous radiative decay. This mechanism is associated with the coupling of the atom to the "zero point electromagnetic fields".

Vacuum Cohesion Vehicle

Ram Implosion Wing

Wingspan 6'6" cord 3'6" 100-lbs. under went testing mounted to the back of a V-8 Van GVW 5750-lbs. mileage was calculated based on a single gallon of gas in back to back test runs, pilot 195-lbs. Resulted in an increases of mileage 2-3-times beyond normal expectancies, however in an independent test run Aug. 13-th 2003 a Dodge Caravan with a V-6 motor weighing in at GVW 2726 lb.. The driver weighs in at 295 lb. and the copilot 195 lb..

After topping off the tank we drove out 10.1 miles and back the same 10.1 miles for a total of 20.2 miles round trip, at 65-mph with the ac unit on. When we arrived back at the fueling station we were amazed to find that we could only squeeze 0.2 tenths of a gallon back into the tank, we even picked the hose up and tried to pour the extra gas from the line into the tank but it all ran back out onto the ground.

20.2 miles @ 0.2 tenths of a gallon = 101-mpg!

A second trip consisted of a 59 mile round trip but this time we were only able to squeeze 0.1 tenths of a gallon back into the tank.

59 miles @ 0.1 tenths of a gallon = 590-mpg!

How You Can Help

This web site, and the company now being formed, QEG-Solutions, was the result of a multi-fold discover and the development of a unique reverse engineering program - "can someone bring the Gravitics Enigma to light?" I've come pretty darn close! So how can You, the average person reading this site, in fact *help* bring this technology to the world?

Allow me to explain:

1.) The simple fact is this: Quantum Electro-Gravitic Solutions is a fledgling R&D Company.

2.) QEG-Solutions has been funded for the most part by private investment money and personal funds.

3.) It costs a considerable amount of money to sustain this research even more to bring this technology to the commercial markets.

4.) This is where you the average reader may help by lending your, Engineering-skills, Electronic-equipment, Grant Proposal Skills or Investment dollars, donations, or just showing your support, can make a big difference in how quickly we are able to offer this technology to the public.

This really is a project that requires funding, but in the meantime I could use some test equipment, for instance an Ion detector $80 dollars, and there are some other High Voltage parts I could use that cost $150 dollars, so that I can build power souses to temporally replace the free energy ZPE converter that is not yet working, due primarily to the need to rebuild the transformer and the waveguide, new $20-30-thousand dollars, surplus a few thousand dollars...

QEG-Solutions has a suitable, environmentally friendly new means of generating Electrical Power, Gravitic Propulsion, and Fuel Saving Devices, however, until at which time funding is found, we face a very uncertain future. Our environment will, at some point, no longer support our disregard for the planet.

Please consider joining myself and others in a team effort on this incredible journey...

Subscribe to: gravitic_solutions

Group home page: http://groups.yahoo.com/group/gravitic_solutions

Thank You

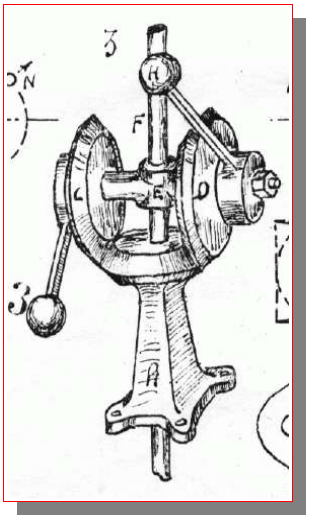
Robert A. Patterson

Alcune Osservazioni sul Dispositivo di Todeschini

di Eugenio Odorifero

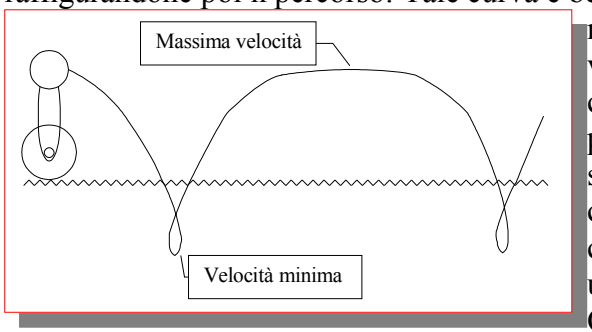
E' ormai un po' di tempo che i filmati in Divx sul dispositivo di Todeschini hanno fatto comparsa sul cd 1 dell'ASSE. E volevo fare delle osservazioni in merito.
Prima però devo premettere alcune cose:

1) Il dispositivo di Todeschini (che in seguito abbrevierò DT) è un brevetto il cui scopo è quello di sollevarsi senza una spinta propulsiva: in parole povere serve per volare senza razzi o eliche. Di questo dispositivo su A.S. si è parlato per la prima volta sul numero 4 a pagina 3 per mano dello stesso Malgarini.
2) Non sono un "fan" di Todeschini, mi sono concentrato esclusivamente sul dispositivo.
3) Il dispositivo funziona per certo: Todeschini era uno stimato scienziato, non parlava a caso, non poteva farlo, un invenzione non funzionante avrebbe avuto di certo conseguenze negative sulla propria carriera.
4) La mia osservazione non si limita alla sola visione dei filmati di Montefuscoli, in quanto ero presente al momento delle stesse riprese.



Disegno originale del dispositivo

Il "dettaglio" più ovvio che si nota osservando questi filmati è che la riproduzione del DT di Montefuscoli non vola. Ma anche il dispositivo costruito da Buldrini e riportato su A.S. n.8 non ha ottenuto risultati positivi. Come mai?
Innanzitutto ho cercato di avere un'idea semplificata del modello immaginandomi uno dei bracci che ruota su un cingolo dritto e orizzontale di lunghezza indeterminata raffigurandone poi il percorso. Tale curva è ben nota ai matematici e si tratta di una cicloide. Bisogna notare che, mentre il dispositivo in figura ruota con una velocità costante, la velocità istantanea del peso all'estremità del braccio è tutt'altro che costante: quando descrive l'arco superiore la velocità è maggiore per raggiungere la velocità istantanea massima nell'estremo superiore della curva qui descritta. Il discorso cambia completamente nella parte inferiore del grafico, in particolare in corrispondenza del cappio inferiore: la velocità è bassa e arriva in un istante infinitesimo ad essere nulla o comunque trascurabile.



Con questa semplificazione bidimensionale si può già sciogliere il mistero del DT: è semplicemente un modo "furbo" per utilizzare la forza centrifuga in modo vantaggioso.
La forza centrifuga è generalmente indicata e intesa per un moto circolare in cui la spinta è in tutte le direzioni e, di conseguenza, nulla. Tutto ciò, comunque, non vale in questo caso in quanto l'arco superiore dà una "spinta" considerevole verso l'alto, il cappio inferiore opera con forze molto più piccole che sono opposte ma non l'annullano e, anzi, quasi si possono trascurare. Di conseguenza la spinta risultante è verso l'alto.
Nei filmati di Montefuscoli "motore todeschini1.lowres.divx.avi" e "motore todeschini2.lowres.divx.avi" si nota il percorso che fanno i pesi. Ancora di più nella figura a destra attraverso una sovrappozione di immagini che evidenziano il percorso costituito da un grosso cappio superiore e da un cappio inferiore molto più piccolo. Si può

notare che la curva evidenziata altro non è che la versione "periodicizzata" della funzione precedentemente descritta.
La conferma di quanto detto prima, cioè che nel tratto in alto la velocità è superiore e in basso è quasi nulla lo conferma il fotogramma (singolo, stavolta) che evidenzia in modo inequivocabile questa affermazione.La differenza tra i due pesi, in termini di forza centrifuga è notevole, ed è proprio questa che costituisce la propulsione del veicolo.
Rimane da pensare sul ruolo della componente orizzontale della spinta dei due pesi, ma ancora una volta si rivela la genialità del DT e del suo ideatore: le forze orizzontali, semplicemente, di annullano per simmetria; simmetria che, invece, non sussiste per le componenti verticali.
Qualcuno potrebbe chiedersi come possono una serie di "spinte", e non una spinta costante come un razzo o delle pale di un elicottero, sollevare il dispositivo da terra. In effetti il DT (e questo lo confermano anche scritti passati) a basse velocità (ad esempio con decine di giri al secondo) dovrebbe vibrare terribilmente, ma con centinaia di giri, per effetto di una piccola conservazione della spinta, questa discontinuità dovrebbe (il condizionale è d'obbligo) cessare ed essere percepita come una spinta continua.
Ho scritto tutto questo per dimostrare, per prima cosa, che non c'è nulla, ma proprio nulla, di arcano in questo dispositivo (come ho detto prima è un modo intelligente di giocare con le forze centrifughe), ma soprattutto *che non c'è nessuna ragione per cui questo dispositivo non debba funzionare.*
Ora passiamo all'analisi del lavoro di Montefuscoli (ma con un colpo d'occhio anche a Buldrini) che hanno indubbiamente realizzato dei prototipi inefficaci, ma quanto meno dei buoni modelli di studio utili a tutti noi– fermo restando che, senza questi ultimi, anch'io ci avrei capito ben poco.

Analisi di due insuccessi

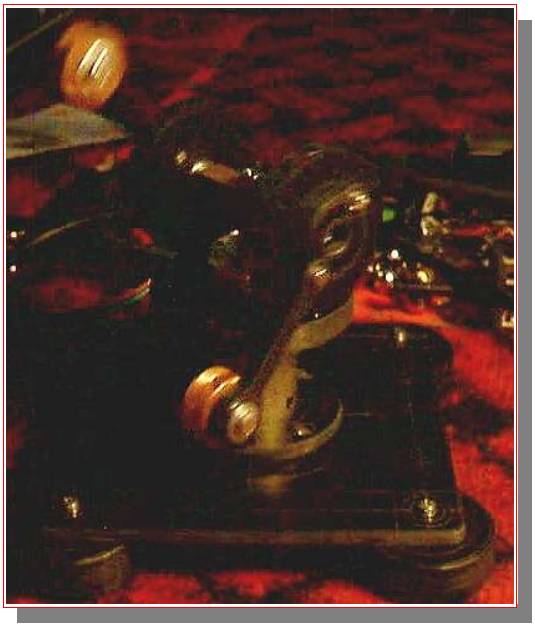
1) Velocità di rotazione troppo bassa.

   Nel ricavare l'immagine qui a fianco, e precedentemente già mostrata, ho utilizzato l'avanzamento frame-by-frame di Virtualdub, notando uno scoraggiante particolare: seguendo il moto di uno dei pesi, questo completava il percorso in 10-15 frames[1]. Dal momento che il filmato è codificato a 30 immagini al secondo, ciò significa che il dispositivo andava tra i 2 e 3 giri al secondo: in effetti sembra di più, l'illusione è stata probabilmente prodotta dal fatto che i pesi sono due.
   Ai nostri fini, quindi, a velocità così basse è inefficace per forza. Montefuscoli aveva adottato un promettente ingranaggio a magneti al neodimio: tale dispositivo è indubbiamente silenzioso, tantochè nei due filmati la mancanza di rumore non è dovuta ad un difetto o un'artificio dell'audio, bensì è proprio il dispositivo che non emetteva un sibilo... potete immaginare anche quanto sia durevole e poco incline all'usura. Purtroppo i magneti non riescono a reggere oltre una certa velocità di rotazione pena un pietoso "slittamento" che ho visto, fuori dalle riprese, di persona. Quindi il rotore può andare più velocemente, ma il resto del DT di Montefuscoli non lo reggerebbe. Rispetto le decine e centinaia di giri al secondo tali velocità sono ben poca cosa e danno origine (cosa che sinceramente all'inizio attribuivo alla poca potenza del dispositivo) anche alle oscillazioni orizzontali causate dalla componente orizzontale della forza che agisce senza fare in tempo ad essere immediatamente annullata.

2) Massa dei pesi poco significativa.

   Il brutto di questo errore è che è stato commesso sia da Montefuscoli sia, da quello che si vede nelle foto, da Buldrini. La massa dei suddetti corpi, non deve essere trascurabile non solo perchè è il fattore più importante nella forza centrifuga insieme alla velocità di rotazione, ma anche perchè anche il resto del

1 Tale fatto potete verificarlo tranquillamente anche voi: Virtualdub è infatti un software libero (www.virtualdub.org) per Windows. Purtroppo non mi risulta una versione per Linux.



meccanismo (bracci, rotore, ingranaggi ecc.) hanno anch'essi una massa significativa. Le masse dei corpi in rotazione non dovrebbero, in relazione alla massa del resto del DT essere di quantità trascurabile. Montefuscoli stesso ha ammesso che la massa dei suddetti, rappresentati nel fermo immagine qui di fianco, è in effetti di poco conto. Nell'immagine al di sotto, in bianco e nero, è raffigurata la versione del DT di Buldrini, in cui tale difetto è ancora più visibile. A occhio nudo si può notare che rispetto al resto del meccanismo, i pesi sembrano quasi una decorazione. Ma ripeto: è stata l'analisi di questi due tentativi a farmi "accendere la lampadina", e sono il primo a incoraggiare il perfezionamento dei due prototipi, quindi vi prego di non fraintendermi.

3) Asse orizzontale troppo ampio

Questa osservazione viene direttamente da Montefuscoli avendo direttamente il modello in oggetto. Con l'alberino orizzontale troppo ampio, infatti, giocano contro anche le forze centrifughe della rotazione intorno allo stesso con effetto di modificare la traiettoria risultante: invece che completamente verticale verrebbe leggermente inclinato, ma con un inevitabile perdita di forza. Il peso superiore infatti non sarebbe soggetta alla forza cetrifuga finora trattata, ma ad una seconda forza di rotazione dovuta dalla distanza dal centro rotore. Montefuscoli, per questo, aveva pensato a ridurre l'asse orizzontale per diminuire il raggio che produce questa indesiderata forza centrifuga, complicando purtroppo il suo progetto. Una soluzione alternativa un pò "originale", ma complicherebbe il progetto molto meno, potrebbe essere la modifica dell'inclinazione attraverso un congruo sbilanciamento della base del dispositivo: insomma, se non è completamente verticale la forza risultante, la si ruota quanto basta per renderla tale.

4) E se fosse sotto vuoto?

Sappiamo che ad alte velocità l'aria diventa un ostacolo non trascurabile: la scienza dell'aerodinamica, del resto, è nata per questo motivo... E' vero che il DT non funziona più come un propulsore convenzionale: non agisce come un razzo, men che mai come le pale di un elicottero: l'aria, la pressione atmosferica non sono in gioco, semmai la prima è un'ostacolo e oltretutto ne trasmette il rumore: il DT per funzionare non ha bisogno dell'aria. Su A.S. n.4 a questo fatto si era già accennato e, a mio parere, una calotta sotto vuoto, oltre ad accrescere la sicurezza del dispositivo, migliorerebbe sensibilmente il rendimento del dispositivo stesso.

Altre osservazioni

Fiorenzo Zampieri, che conosce insieme a Montefuscoli già le suddette osservazioni riporta nel passaggio seguente:

Sembra quindi, che in tutto questo vi possa essere una "incomprensione" del funzionamento del dispositivo stesso.

In effetti, per come è stato realizzato (correttamente peraltro), esso dovrebbe avanzare e non alzarsi.
Ciò risulta evidente analizzando sotto un altro punto di vista il moto delle masse e cioè nel loro insieme. Studiandone il moto reciproco risulta evidente che esse (chiamiamole A e B) si "incontreranno" , due volte, per ogni giro completo del sistema, nella stessa posizione reciproca (la

prima volta con A a dx e B a sx e la seconda con A a sx e B a dx), sommando, così, il quell'istante, le loro forze centrifughe e producendo, quindi, in quello stesso momento il massimo della spinta in quella direzione (in avanti). E' pur vero che durante il loro percorso le masse producono forze centrifughe rivolte secondo direzioni diverse, ma a ben analizzare sempre contenute in una semisfera situata nella direzione del movimento prodotto.

Mi permetto, quindi, di suggerire a Montefuscoli di montare il suo DT, così com'è, sopra a un carrellino a quattro ruote, cosicchè il sistema abbia la possibilità di muoversi in avanti senza sforzo (spero).

Il principio del funzionamento del DT è comunque chiaramente descritto nel volume "Psicobiofisica" di Todeschini alle pagg. 411 – 416.

Potrei rispondere che nelle prove dei suddetti filmati si nota che in avanti proprio non va. Montefuscoli del resto aveva già fatto prove simili anche con una piattaforma mobile con esito altrettanto negativo. Anche per questo motivo ho riconsiderato il sistema con una più plausibile spinta verso l'alto e, comunque, se ci fosse una spinta in avanti ci sarebbe pure la spinta all'indietro del punto 3). Può darsi pure che si sia anche una spinta in avanti non visibile per il motivo 1) e 2), e tuttavia impedisce il verificarsi di entrambe le cose.
Il suddetto sperimentatore, in ogni caso, si sta impegnando a costruire un DT più robusto, capace di supportare maggiori pesi e velocità e alla fine darà la sentenza finale su quali forze siano veramente in gioco.

Verso nuovi orizzonti!

Abbiamo visto quanto un dispositivo che utilizza un percorso cicloidale analogo a quello del DT possa essere un'alternativa agli attuali sistemi di trasporto, non necessariamente aereo. Tuttavia un dispositivo che ha una propulsione meccanica di questo tipo ha il problema di grosse forze in gioco da equilibrare, di una costruzione attenta, durevole e allineata, di rumori, vibrazioni ecc...
Da tempo mi piacerebbe sapere se produrre una spinta descrivendo un moto cicloidale molto più piccolo, ma con frequenza elevata, come centinaia o, perche no, milioni di Hz possa essere una soluzione migliore.
In teoria non sarebbe difficile: la cicloide[2] si potrebbe separare in una componente orizzontale e verticale (l'abbiamo anche visto!) riproducibili attraverso l'oscillazione verticale e orizzontale di un campo magnetico. Quest'ultimo può agire su un magnete o su un corpo ferromagnetico per riprodurre appunto un movimento cicloidale. Il risultato a mio avviso sarebbe di gran lunga più vantaggioso: richiederebbe molta meno energia (almeno rispetto ad un lifter) e una maggiore spinta potrebbe essere semplicemente determinata da una maggiore frequenza. Rimarrebbe il problema di come il corpo sottoposto a tali oscillatori possa essere “collegato” al resto del dispositivo e nello stesso tempo renderlo relativamente libero di muoversi.

2 La cicloide classica è descritta con i punti con coordinata (t-sen t, 1-cos t), ma visto che il nostro modello rimane sull'origine allora (sen t, 1-cos t) meglio descrive il fenomeno.

Da: "Stefano Innocenti" <s.innocenti@agora.it>
A: <altraenergia@yahoogroups.com>
Oggetto: [altraenergia] Re: E' morto Ighina
Data: venerdì 9 gennaio 2004 23.57

Rigiro da un messaggio che mi e' arrivato:

E' MORTO IL PROF.PIERLUIGI IGHINA

Giusy ZITOLI,coordinatrice dell'Associazione "Progetto Ighina",ha comunicato la morte il prof. Pierluigi IGHINA,che da qualche tempo si trovava ricoverato in ospedale in stato di coma...
Pierluigi IGHINA,95 anni,era l'ultimo collaboratore vivente dello scienziato Guglielmo MARCONI,il famoso inventore della radio.

[]
Egli stesso era stato autore di varie scoperte ed invenzioni tra le quali l'atomo magnetico,l'apparecchio trasmettitore per la fusione e l'apparecchio incisore di energia elettrica,un nuovo concime chimico,il microscopio lenticolare,il rigeneratore di cellule,il neutralizzatore di terremoti,e molte altre.

[]

Snobbato dai circoli accademici e privo di risorse finanziarie per le sue ricerche,IGHINA godeva comunque della stima di vari scienziati "non allineati",come il compianto prof.Giuliano PREPARATA dell'Università di Milano e della simpatia di tutti gli spettatori che avevano seguito le sue apparizioni televisive al "Maurizio Costanzo Show" su Canale5 e a "Report" su Raitre.RETE-UFO nel 1998 ha dedicato allo scomparso scienziato vari articoli pubblicati sul bollettino UFO-RAMA.Chi fosse interessato a riceverli può richiederli ai nostri abituali recapiti.

Raggiunta al telefono Giusy ZITOLI ha dichiarato:
""IGHINA,il mio maestro se n'è andato...Chiedo per lui un saluto pieno di amore e ringraziamento per aver onorato con la sua presenza questo pianeta ingrato e immeritevole della sua immensa luce!!""

Il libro "L'Atomo Magnetico" scritto da IGHINA è pubblicato da Atlantide Edizioni casella postale nr.64 - 20100 Pogliano Milanese (MI)
E-mail : atlanted@tin.it .La stessa Casa Editrice pubblica anche il libro "Io l'ho conosciuto" di Giusy ZITOLI,coordinatrice dell'associazione "Progetto Ighina".

Carissimo Franco,

innazitutto vorrei farti i miei complimenti per la mamma tua, che è così brava e cordiale.

Mi congratulo anche per la tua rivista, che trovo molto interessante, ed anche er l'ASSE. Quando ne parlavi accanito ad una riunione dell'ASPS, ero sicuro che ALTRA SCIENZA sarebbe stata solamente una buona cosa, invece vedendola adesso, sono rimasto sorpreso perchè non me l'aspettavo così piena, ricca e concreta, certamente con un ottimo avvenire.

Ti ringrazio d'avermi detto che sono socio onorario e grazie anche per il cd con le 21 riviste; ho capito tantissime cose, fra queste anche il fatto che di sicuro nessuno proverà ad interessarsi della mia "pila meccanica", almeno non in tempi brevi. Per questo ti chiedo se fra i lettori del tuo giornale qualcuno possa consigliarmi il materiale più idoneo per costruire da solo la mia pila, che non deve essere come nel disegno, bensì con cinque motori, per avere un migliore rendimento; perciò, partendo dal generatore, che certamente lavora a 3000 giri, i cinque motori dovrebbero avere circa 600 giri, e per avere un buon rendimento elettrico, forse, dovrebbero essere motori a molti giri con un riduttore incorporato; naturalmente con la potenza adeguata al generatore.
Mi può anche interessare qualche industria, magari di generatori, che sia disposta a fare il preventivo per costruire il meccanismo e ringrazio anticipatamente.

Cambio argomento per dire che nelle mie varie esperienze, ho anche provato ad incollare su legno mezzo anello magnetico con il polo negativo verso sopra, e poi una ruota con volano ed un magnete con il polo negativo verso il mezzo anello, in modo che si respingessero. Naturalmente, la ruota non poteva girare per sempre, ed allora nel mezzo giro passivo della ruota ho interposto vari materiali, anche ferro dolce in movimento e poi limatura di magnete fatta a piastrina; anche una piastrina formata da fettine di magnete con poli alterni, tanto che nella sua parte centrale attirava i metalli ferrosi, ma rimaneva indifferente sia al magnete positivo che al negativo; mentre dal bordo, e cioè quando doveva uscirne dal magnete rotante, disturbava la rotazione, e nel totale come se non ci fosse. Il mio dizionario mi ha suggerito di usare una piastrina di Bismuto, però questa prova non l'ho fatta.
Invece, ho fatto la prova con un conduttore di alluminio, grande e vuoto dentro, praticamente un tubo, all'interno del quale ho fatto girare un magnete; nella rotazione solo un polo del magnete sfiorava l'interno del tubo, perchè l'altro polo stava abbastanza lontano. Io credevo che agli estremi del tubo ci sarebbe stata un un po' di corrente, ma non l'ho rilevata, almeno con gli strumenti che ho utilizzato (che non erano in grado di misurare il mezzo volt). Lo scopo era di evitare la resistenza alla rotazione; all'interno del cavo, la sinistra diventa destra, ed allora la corrente indotta dovrebbe aiutare la rotazione, o almeno, non opporre resistenza. Ora al posto del cilindro avrei dovuto fare la prova con un cono, ed ecco che tu mi hai parlato di generatore omopolare, ed io da esterno dico il mio punto di vista.

1) Consideriamo due dischi con magnete circolare incollato nel mezzo; potremmo addolcire il contatto strisciante (che sicuramente si usa far strisciare sulla circonferenza dei dischi) bloccando nel punto di tale contatto strisciante in modo solidale una piattina di alluminio, che faremo arrivare su un lato dell'albero dove sarà collegata con un collettore, cioè un anello di rame di pochi cm. che riceverà il contatto strisciante; dall'altro lato andrà l'altro collettore che prende corrente dell'altro disco; la quantità di corrente generata non dovrebbe variare.
2) dal momento che i due dischi sono due elementi in serie (cioè due conduttori, e ad uno la corrente va dalla periferia del disco verso il centro del disco, e unita la serie elettrica dall'albero di rotazione, l'altro disco porta la corrente dal centro verso la periferia del disco), potrebbe essere una buona idea isolare i dischi sull'albero, per poi far partire più facilmente il collegamento elettrico, che porta ai due colletori; quindi, unire la serie elettrica dei due dischi sulla circonfereza, nel punto dove vi erano i contatti striscianti. Detti dischi si possono unire con una sola asta conduttrice oppure con un anello o per meglio dire, con un tubo conduttore;
3) se collegando le due circonferenze in un solo punto sui collettori si trova corrente alternata o pulsante, tanto meglio, che si farà passare mezza spira, da un trasformatore incorporato nella parte rotante, (io uso dire mezza spira, dato che la spira di un avvolgimento è quasi un intero cerchio; anche nel trasformatore la spira è una andata e ritorno, se quindi si farà solamente andata si può dire che è mezza spira), ed ottenere su un altro avvolgimento molti Volts, e quindi meno Amper da far passare dai collettori;
4) se collegando le due circonferenze in un solo punto si genera corrente pulsante, sarebbe buona cosa unire

i due dischi in serie sull'albero (come attualmente) ed usare i due punti della circonferenza per far partire il conduttore, e la sua mezza spira passerebbe da un trasformatore incorporato fra i due dischi, quindi ottenere molti volts da attingere facilmente dal collettore; naturalmente, considerando che conviene mettere il trasformatore fra i due dischi, (un trasformatore o anche di più, ed ognuno con il suo collegamento da un punto equidistante dalla circonferenza dei dischi); ne consegue che i magneti devono lavorare dalla parte esterna.

5) Se invece la corrente è necessariamente continua, sarebbe necessaria una parte elettronica incorporata nella parte rotante, prima del trasformatore.
6) Se i magneti, invece che ad anelli saranno a settori, in questo caso credo necessariamente non rotanti, certamente la corrente sarà pulsante ed andranno bene i trasformatori: è necessario controllare bene se la corrente pulsante (generata o anche prelevata ad intermittenza) frena eccessivamente i dischi.
7) Se la corrente è continua, si può anche usare il sistema di fare uno dei due collettori a lamelle, e su questo usare due contatti striscianti spostati di un po' di gradi, per alimentare due trasformatori indipendenti, in modo che attingano corrente alternata, facendo lavorare il disco in modo continuo.
8) Se due dischi si possono mettere in serie per raddoppiare il voltaggio, chissà se si possono mettere in serie molti dischi, uniti elettricamente, una volta verso l'albero ed una volta sulla circonferenza, per ottenere molti volt. Se i magneti ruotano insieme ai dischi non dovrebbe essere eccessivamente difficile.
9) Se il magnete è incollato al disco e girano insieme, sarebbe come se il magnete è fermo ed il disco gira. Si potrebbe incastonare il magnete in un disco isolante o anche metallico e farlo girare in modo tale che il magnete sfiora il disco di lavoro, che in questo caso è fermo; in questo modo dovrebbe generarsi corrente, senza dover necessariamente utilizzare i contatti striscianti.
10) Si possono fare dei tagli sul disco per creare alcuni settori, magari lasciando intero il bordo esterno del disco, così da ottenere corrente pulsante ad ogni settore, (se i magneti non ruotano) anche se certamente il disco verrebbe frenato.

Ho letto che nel GENERATORE OMOPOLARE DI FARADAY si sospetta che la corrente venga generata sull'ago del contatto strisciante, visto che il conduttore è schermato; mi sembra poco probabile. Io mi azzardo a dire che è più propabile che nei metalli (e forse anche altrove o dapertutto) vi siano particelle libere che navigano per conto loro, non considerando neanche il metallo che si muove o che ruota velocemente, e che ubbidiscono solo se vengono convogliate e pressate dalle "ALI DI LAVORO" del magnete, verso la direzione stabilita. Il magnete ha le linee di forza, che si vedono dallo spettro, e che sono le linee di forza di attrazione; ma ha anche le ali di lavoro che servono per convogliare l'elettricità; io ho qualche disegno, ma non sono ancora riuscito a fare il plastico; se e quando lo farò, sarà più concreto seguire il loro funzionamento e verrò a fartelo vedere.

La prossima volta che verrò a Roma ho intenzione di portare nel tuo laboratorio un contagiri elettronico, che non uso più, e due dischi di alluminio di cm. 22 con spessore 5, ed altri due con spessore 3 cm., che potrebbero essere utili per fare qualche prova.

Visto che un anello magnetico spinge la f.e.m. verso l'esterno, oppure verso il centro del disco, io sto progettando un tamburo, che altro non è che un cilindro isolante con avvolto una lunga spirale di filo di rame smaltato, in modo da formare una corona circolare di fili elettrici dai due lati del tamburo. Mettendo due anelli magnetici con lo stesso polo ai due lati del tamburo (visto che lo stesso polo magnetico, invertendo lato, inverte il senso di rotazione) ne risulterebbero molte spire in serie, ottenendo così molti volt e quindi una f.e.m. da prelevare facilmente dai contatti striscianti sul collettore di rame. Una volta finito il tamburo lo porterò a Roma per provarlo insieme.

Cari saluti,

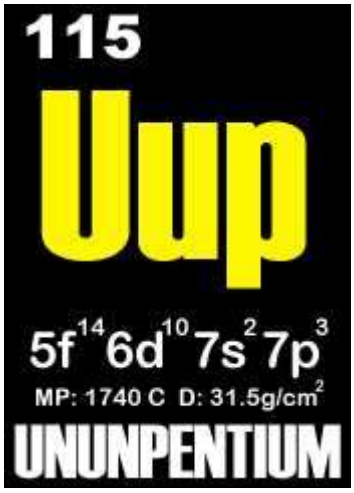
Cosimo Sgarlata

Frontiere ALTRASCIENZA

Fonte:http://www.abovetopsecret.com/pages/element115.html

SUPERHEAVY ELEMENTS DISCOVERED

THE DISCOVERY OF ELEMENT 115 PAVES THE WAY TO UNDERSTANDING GRAVITIC CONTROL



Element 115, the key to understanding how the ultra-secret "Black World" has created aircraft capable of manipulating gravity and space/time, has been identified, and the recent discovery of element 118, which decayed into element 114, further helps identify the possibilities.

The most important attribute of this heavier, stable element is that the gravity A wave is so abundant that it actually extends past the perimeter of the atom. These heavier, stable elements literally have their own gravity A field around them, in addition to the gravity B field that is native to all matter.

The Key To Gravity-Control Systems

No naturally occurring atoms on earth have enough protons and neutrons for the cumulative gravity A wave to extend past the perimeter of the atom so you can access it. Now even though the distance that the gravity A wave extends past the perimeter of the atom is infinitesimal, it is accessible and it has amplitude, wave length, and frequency, just like any other wave in the electromagnetic spectrum. Once you can access the gravity A wave, you can amplify it just like we amplify other electromagnetic waves.

And in like manner, the gravity A wave is amplified and then focused on the desired destination to cause the space/time distortion required for practical space travel.

This amplified gravity A wave is so powerful that the only naturally occurring source of gravity that could cause space/time to distort this much would be a black hole.

We're amplifying a wave that barely extends past the perimeter of an atom until it's large enough to distort vast amounts of space/time.

Transmutation

We synthesize heavier, unstable elements by using more stable elements as targets in a particle accelerator. We then bombard the target element with various atomic and sub-atomic particles. By doing this, we actually force neutrons into the nucleus of the atom and in some cases merge two dissimilar nuclei together. At this point, transmutation occurs, making the target element a different, heavier element.

As an example, in the early 80's, the lab for heavy ion research in Darmshtot, Germany synthesized some element 109 by bombarding Bismuth 203 with Iron 59. And to show you how difficult it is to do this, they had to bombard the target element for a week to synthesize 1 atom of element 109. And on that subject, this same lab has projected that in the future they should be able to bombard Curium 248 with with Calcium 48 to yield

element 116 which will then decay through a series of nuclides which are unknown to them, but are well known to the scientists at S4 located within the complex of the Groom Lake "Area 51" installation.

The length of time which an element exists before it decays determines its stability. Atoms of some elements decay faster than atoms of other elements, so the faster an element decays, the more unstable that element is considered to be. When an atom decays, it releases or radiates sub-atomic particles and energy, which is the radiation that a Geiger counter detects.

Alien Craft

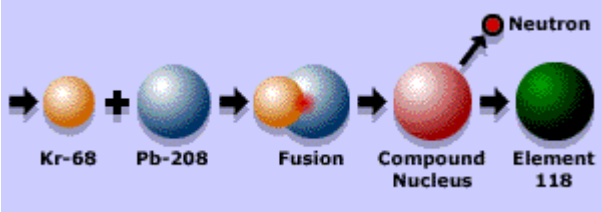
The reactor found in the alien craft at S4, as widely mentioned by physicist Robert Lazar is primarily based on a superheavy element with an atomic number of 115. Element 115 will be designated as "Ununpentium" according to IUPAC guidelines. Its periodic designation and electron configuration appear in the diagram at the top of the page.

GENERAL PROPERTIES			
Name:	Ununpentium	Symbol:	Uup
Atomic Number:	115	Atomic Weight:	UNKNOWN
Density @ 293K:	31.5g/cm³	Atomic Volume:	13.45cm³/mol
Group:	Superheavy Elements	Discovered:	1989
STATES			
State:	Solid		
Melting Point:	1740°C	Boiling Point:	3530°C
Heat of Fusion:	UNKNOWN kJ/mol	Heat of Vaporisation:	UNKNOWN kJ/mol
ENERGIES			
1st Ionization Energy:	531 kJ/mol	Electronegativity:	UNKNOWN
2nd Ionization Energy:	1756 kJ/mol	Electron Affinity:	UNKNOWN kJ/mol
3rd Ionization Energy:	2653 kJ/mol	Specific Heat:	UNKNOWN J/gK
Heat Atomization:	kJ/mol atoms		
APPEARANCE AND CHARACTERISTICS			
Structure:	FCC Face-centered cubic	Color:	Reddish-orange
Uses:	Reactor Fuel	Toxicity:	UNKNOWN
Hardness:	UNKNOWN mohs	Characteristics:	Stable
CONDUCTIVITY			
Thermal Conductivity:	6.1 J/m-sec°	Electrical Conductivity:	7.09 1/mohm-cm
Polarizability:	20.5 A³		

Wednesday, June 9, 1999 Published at 10:52 GMT 11:52 UK

Sci/Tech

New superheavy elements created



The collision of lead and krypton leads to the new elements.

BBC News Online Science Editor Dr David Whitehouse

Two new "superheavy" elements have been made by bombarding lead atoms with energy-packed krypton atoms at the rate of two trillion per second.

After 11 days, the scientists working at the Lawrence Berkeley National Laboratory, US, had produced just three atoms of element 118. These contained 118 protons and 175 neutrons each in their nucleii.

The new elements decayed almost instantly to element 116, which itself was short-lived. But, for that brief moment, they were the only three atoms of these elements ever to have existed on Earth.

Ken Gregorich, the nuclear chemist who led the discovery team, said: "Our unexpected success in producing these superheavy elements opens up a whole world of possibilities using similar reactions: new elements and isotopes."

US Secretary of Energy, Bill Richardson, commented: "This stunning discovery opens the door to further insights into the structure of the atomic nucleus."

Unstable combination

Atoms consist of a central nucleus surrounded by a cloud of electrons. The nucleus consists of protons and neutrons.

But not all combinations of neutrons and protons are stable. In nature, no element heavier than uranium, with 92 protons and 146 neutrons, can normally be found.

Scientists can make heavier ones by colliding two large nuclei together and hoping that they will form a new, heavier nucleus for a short time.

One of the most significant aspects of the new elements is that their decay sequence is consistent with theories that predict an "island of stability" for atoms containing approximately 114 protons and 184 neutrons.

"We jumped over a sea of instability onto an island of stability that theories have been predicting since the 1970s," said nuclear physicist Victor Ninov. He is the first author of a paper on the discovery submitted to Physical Review Letters journal.

Atomic structure

Synthetic elements are often short-lived, but provide scientists with valuable insights into the structure of atomic nuclei. They also offer opportunities to study the chemical properties of the elements heavier than uranium.

I-Yang Lee, scientific director of the atom smasher at Lawrence Berkeley National Laboratory, said "From the discovery of these two new superheavy elements, it is now clear that the island of stability can be reached.

"Additionally, similar reactions can be used to produce other elements and isotopes, providing a rich new region for the study of nuclear properties."

Fast work

Element 118 takes less than a thousandth of a second to decay by emitting an alpha particle. This leaves behind an isotope of element 116 which contains 116 protons and 173 neutrons.

This daughter is also radioactive, alpha-decaying to an isotope of element 114.

The chain of successive alpha decays continues until at least element 106.

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1 August 2001

PhysicsWeb

Element 118 disappears two years after it was discovered

Researchers at the Lawrence Berkeley National Laboratory in the US have retracted their claim to have discovered element 118. The retraction follows more detailed analysis of the original data at Berkeley and the failure of experiments at Berkeley, the RIKEN laboratory in Japan, and the GSI laboratory in Germany to observe the element.

In 1999 a team of researchers from the Berkeley lab, the University of California at Berkeley and Oregon State University claimed to have detected three atoms of element 118 in collisions between high-energy krypton ions and a lead target. "The observation of a chain of six high-energy alpha decays within about one second unambiguously signalled the production and decay of element 118" said team leader Ken Gregorich at the time. Element 118 was then the heaviest element to have been detected.

In a brief statement submitted to Physical Review Letters, which published the paper reporting the original discovery, the Berkeley team write: "Prompted by the absence of similar decay chains in subsequent experiments, we (along with independent experts) re-analyzed the primary data files from our 1999 experiments. Based on these re-analyses, we conclude that the three reported chains are not in the 1999 data. We retract our published claim for the synthesis of element 118."

"Science is self-correcting," said Berkeley director Charles Shank. "If you get the facts wrong, your experiment is not reproducible. There are many lessons here, and the lab will extract all the value it can from this event. The path forward is to learn from the mistakes and to strengthen the resolve to find the answers that nature still hides from us."

Fonte: http://www.amasci.com/freenrg/make115.txt

A KELLER-SYTLE ALCHEMY RECIPE FOR 115

To whom it may concern... And seekers of element 115... How to make it...

OR fun with pyrotechnic

Keeping in tune with the gravity of things, this little experment may get you off the ground. I have not done this yet.

Using the Jack Keller process and some of Dr. Walter Russell's illuminations, a bit of J. C. Maxwell EM equations, some of Dr. Roberto Mounte's work, the Keller transmutations have been proven to work... Merlin has just moved the process down the Periodic chart, or increased the operation another octave, to give the higher atomic number (element Uup115.)

Just like the classic transmutation of O + C = Fe 2nd octave, or more like the profitable O + C = Pt in the 7th octave .... So by pulling with a noble gas like Ne, Ar, Kr, Xe, or Rn and pushing in to Bi with U, Ra, Th...

Since there is no Uup115 seed material aviable to the common folk, we will use I, Ge, with Bi to seed and start the reaction and hope that will do.

To find out how to use this new element take a look at the {http//:boblazar.com } Bob Lazar home page.

Things that need to be built

1. Burn chamber: start with a # 2.5 coffee can and some Cu wire #0 gage. Wind the wire 2 turns about the bottom 1/3 of the coffee can, and weld the ends of the wire together. Make sure that the wire is not too tight on the can.

2. Cover for the burn chamber: use the metal lid cut from a #5 coffee can, punch 2 holes in the lid,one in the center and another about 1.5in. from the first hole. Find a ceramic small insulator to withstand about 5-10 Kilovolts for the center hole. This is the igniter. Insert a steel wire 8in in length thru the ceramic insulator. For the other hole, find a length of steel 1/4 in. tubing

at an auto parts store, bend the tube at say 90 degrees to give 3in and 12in sides. Insert the short end 1in. thru the lid's other hole, and tack weld the tube to the lid.

3. Build an igniter power supply having 5-10kv output voltage. Use an automotive spark coil, capacitor 4-20 mfd, switch, battery, Hi voltage wire. Construct a charge/discharge type HV pulse source.

4. Obtain a balloon that will hold about 2-3 cubic ft., also neon gas to fill the balloon, find a valve (fish tank type,) and plastic tubing which fits the steel tube on the lid, the valve, and fits and the stopper in the balloon. (Neon is available at a "tube art" store.)

5. Mix SrNO sub 3 70% wt.,, S 7%wt.,, and C 23%wt. To about 2/3 of a coffeecan measure, add about 1oz. of Bi and .01gr. of a stable I compound { ICl } and .01gr UNO sub 3. MIX and MIX again. Pour into the # 2.5 can, DO NOT PACK, fill can to 2/3 from top.

6. In a large metal bucket place the can, mix, and just lay the lid on top, so that the neon gas can fill the coffee can. Also bend the HV wire end within the can so that it comes with in 1/8in of the side of the can, so that it can arc through some of the mix and ignite it.

7. Hookup the igniter wire to the power supply (We will later toggle this switch to fire the mix.)

8. Set the valve for the neon gas to just flow very slowly. Allow it to purge the air out of the can.

9. FIRE the mix ... BE SURE that the lid is NOT held down!!!! Stay at least 50 ft from the reaction, as there could be a large amount of radiation gamma and Beta rays...

10. The button of stuff at the bottom of the can will have Uup115 and Bi, also some Pt group, you must separate somehow.

Some Notes that may help:

--- Kickers: these are elements that will increase the yeild.
Ge (germanium,) I (iodine,) Ar (argon,) Kr (krypton,) and U (uranium) will do this.

--- There are some elements that will cause an adverse reaction: proton emitters like Ta (tantalum) and Re (rhenium,) they could create small BLACK HOLES or Singularities or level an area. Protons and Uup 115 make antimatter, mix this with Hydrogen and you have nothing left.

---Basically this is the Jack Keller system, but modified to push the transmutation beyond the Platinum / Gold group; the next level down on the Periodic table.

--- note: #2.5 can is about 6in. by 3.5in. dia. And #5 can is about 7in. by 5.5in. dia.

Good luck - MERLIN

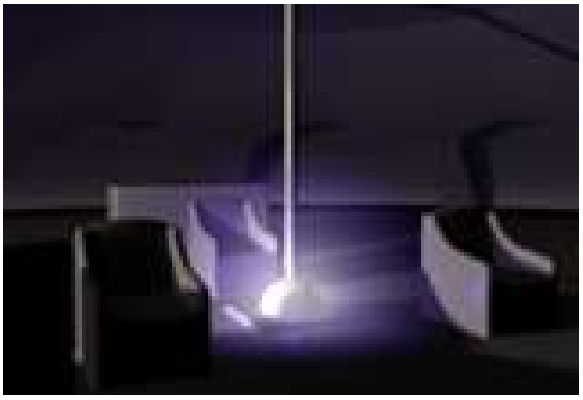
The problem is to ID the resulting material... any suggestions?

Fonte: http://web.tiscali.it/no-redirect-tiscali/poma/ufoscience/area51/discovolante/discovolante.htm

DISCO VOLANTE

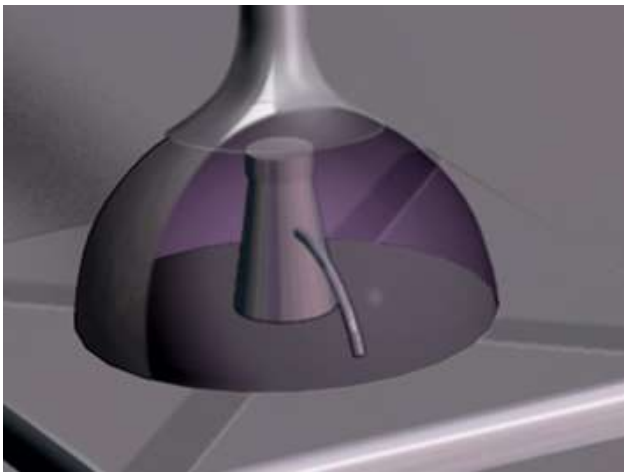
La meta di questa relazione è trattare il concetto di viaggio interstellare che usa propulsione a gravità come illustrata in una singola nave spaziale aliena che chiamiamo "**il Modello Sport**".

Il reattore è un sistema chiuso che usa l'**elemento 115** come suo combustibile. L'elemento è anche la fonte dell'onda di gravita-A la quale è amplificata per la distorsione dello spazio/tempo e per i viaggi.



Il disco è uno dei nove, donati al governo americano in un programma di "scambio" nei primi 1970. I creatori dela nave e i fornitori del combustibile venivano dal sistema stellare **Zeta Reticuli**. Quello che abbiamo scambiato per la tecnologia non è conosciuto. Un programma di reto-ingegneria è cominciato nel 1979 del rimanente hardware e della tecnologia.

Il Reattore



La fonte di energia è un reattore che usa l'**elemento 115** come combustibile. In questo reattore l'elemento 115 è usato come un bersaglio ed è bombardato con **protoni** in un acceleratore di particelle piccolo, molto sofisticato. Quando un protone fonde nel nucleo di un atomo di 115, è **tramutato** e diviene un atomo di elemento **116**. Benchè noi possiamo anche tramutare elementi qui sulla terra, esso non è fatto tipicamente in questa maniera, o comunque vicino questo livello di efficienza. Inoltre, abbiamo ancora da produrre qualche cosa di più pesante dell'elemento 112. Così come ciascuno atomo di 115 è tramutato nel 116, immediatamente **decade** e produce una radiazione dissimile da quella che normalmente osserviamo in un decadimento nucleare. Ciascun atomo di elemento 116 decade e **rilascia due antiprotoni** (anti-idrogeno), una forma di **antimateria**. Antimateria può essere prodotta in acceleratori della particella qui su terra, ma solo in piccole quantità e solo per brevi periodi di tempo.

Il flusso di particelle di antimateria prodotte nel reattore sono canalizzate giù su un tubo di evacuazione accordato (il quale lo tiene dal contattare la materia che lo circonda) e reagisce con un bersaglio di materia gassosa. Questa reazione di **Annichilazione Totale** è la reazione più efficiente di energica nucleare che c'è. Le reazioni nucleari più familiari sono la Fissione, che produce energia dal frazionamento di atomi come usati nei reattori nucleari e bombe atomiche, e Fusione, la fusione o combinazione di atomi (tipicamente nuclei di idrogeno) che rilasciano anche più energia. Fusione è la reazione che energizza il sole e le altre stelle ed è quello che dà il loro "punch." alle bombe all'idrogeno.

Queste due reazioni nucleari più comuni sono rimpicciolite dal potere ed efficienza della reazione di annichilazione nel reattore alieno.

La **reazione** tra il bersaglio di materia gassosa e le particelle di antimateria producono una liberazione continua di quantità tremende di calore. Questo calore è convertito direttamente in elettricità dall'uso di un **generatore termoionico**. Il generatore termoionico usato in questo reattore è così efficiente, che **non c'è nessuna scoria di calore** prodotta o misurabile. Questa è una violazione apparente di una delle leggi di base della termodinamica.

Simile, ma non come efficienza o potenza, i generatori termoionici sono usati come fonti di energia nei nostri satelliti e sonde spaziali.

Anche se tutto questo sembra sorprendente ed efficiente, è solo secondario alla funzione primaria del reattore. Il **flusso di antiparticelle** emesse dall'elemento 115 tramutanti **non è la sola energia irradiata** durante operazione. Questo è il punto al quale la **onda di gravità A** è prodotta. L'onda di gravità emessa dalla reazione del 115 appare sull'emisfero del reattore, propagantesi su una **guida d'onda** accordata in una maniera molto simile al comportamento delle **microonde**.

Tutte le azioni e reazioni all'interno del reattore è orchestrato perfettamente come un piccolo balletto, ed in questa maniera, il reattore fornisce una quantità enorme di energia usata per amplificare l'onda di gravità A che così può causare la richiesta **distorsione dello spazio/tempo** per i viaggi spaziali.

L'**elemento 115** è trasformato in **triangoli** ed è inserito nel reattore. Questo pezzo di elemento 115 è sia la fonte della onda di gravità A sia anche l'obiettivo che è bombardato con protoni per rilasciare l'anti-materia.

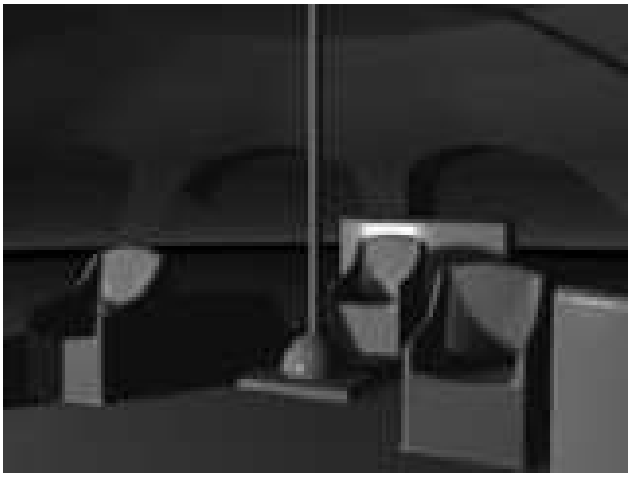
La fonte del potere è un reattore che usa l'elemento 115 come combustibile ed usi una reazione di annientamento totale che fornisce il calore da convertire in energia. E in questa maniera, funziona come una compatta, leggera, efficiente fonte di energia di bordo.

IL SIMULATORE DI JAROD 2

Quando ogni genere di aereo è in fase di sviluppo, è costruito un **simulatore di volo** in parallelo con lui per allenare i piloti e i sistemi di test. **Jarod_2** definisce un simulatore come qualcosa che "simula un congegno vero o una nave per mettere in grado l'operatore di riprodurre le condizioni e i fenomeni che accadono durante l'esecuzione vera". Il simulatore su cui ha lavorato è una riproduzione di un disco volante, identico in apparenza alla nave vera eccettuato il fatto che si attaccava alla terra attraverso una base basculante. Jarod 2 crede che la nave vera, benchè costruita da umani, è basata su tecnologia extraterrestre.

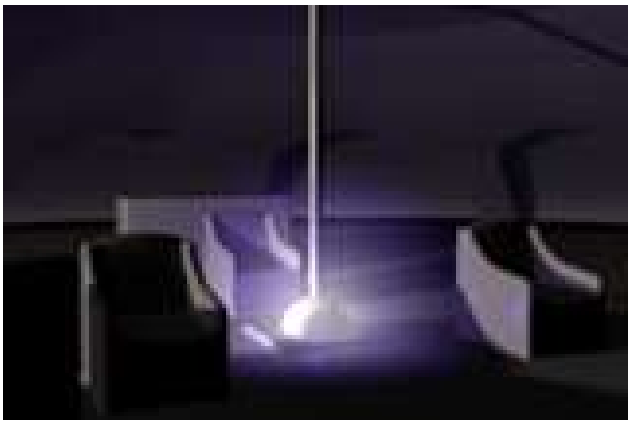
"Solamente di quando in quando io e il mio gruppo andavamo al simulatore, che era housed in un edificio separato alla facility stessa. Potevamo spendere qualche ora per adattare un componente e dopo ritornavamo alla sala disegno". Era in queste visite al simulatore che Jarod 2, l'ingegnere umano, di quando in quando ha visto Jarod 1, l'alieno grigio. Poichè il gruppo già era stato

informato sulla presenza dell'alieno, l'apparenza di Jarod 1 nella stanza del simulatore poteva sembrare quasi normale



"Si entra nel simulatore attraverso un boccaporto strettamente adattato nel muro laterale, esteso a separare la conchiglia dalla sommità. L'interno è di base un grande spazio aperto, diviso per un terzo dal pavimento su dalla base. Nel mezzo di questo ponte è un "reattore" (simile a quello descritto da Lazar, benchè Jarod non sa che che cosa contenga dentro. (suggerisce che il montaggio del reattore nel simulatore può essere soltanto un facsimile)). Un **tubo di circa sei pollici** in diametro corre dalla sommità del reattore direttamente su, attraverso il centro della nave ed attraverso il tetto, formando una "**antenna**" sulla sommità". Benchè è fuori del suo campo, Jarod pensa che questo tubo è importante per **mantenere la nave diritta** mentre è in volo. La "**torretta**" alta 3 piedi sulla sommità della nave, che Lazar descrive come contenente un ponte stretto che non era permesso vedere, è aperta nel modello di Jarod 2 e contiene alcuni strumenti accessibili dal ponte di volo. È qui installato un **sistema celeste di navigazione**, che (nella nave operativa) guarda fuori attraverso finestre nella torretta per misurare posizioni stellari. Questo è un sistema comune di navigazione per missili ed aerei.

Non c'è nessun reale "fronte" o "posteriore" alla nave. Può viaggiare in ogni direzione, e "fronte," per convenienza umana, è dovunque si sceglie di mettere il ponte di volo. Jarod dice che ci sono "**poli**" orizzontali, comunque, chiamati nord e sud, e questi poli giocano un ruolo sul come fanno girare la nave. Dentro, si riferiscono settori della nave a per 360 gradi da nord, come una rosa di bussola. Jarod si riferisce alla nave come un piccolo "pianeta" con **campi magnetici, elettrici e gravitazionali molto simili alla Terra**



Il **ponte di volo** sulla nave di Jarod occupa circa una metà (o 180 gradi) della camera interna. E' su un ponte secondario eretto sopra il ponte principale, circa 3 o 4 piedi ed accessibile da una piccola scala curva. Sul ponte di volo vi sono **tre sedie**, due davanti per il pilota e co-pilota, ed uno a una scrivania dietro loro, che può essere visto come il navigatore o osservatore. Non ci sono finestre per il pilota, solamente pannelli di controllo somiglianti a quelli trovati in un aereo convenzionale. Avendo il ponte di volo su un lato la nave può sembrare squilibrata, essendo più pesante su un lato, ma questo era poco importante, Jarod dice. Il centro di gravità non è importante quando tu puoi controllare la gravità.

Sotto il ponte principale vi sono agganciati verticalmente **tre cilindri** su supporti **basculanti**. Lazar riferisce a questi come "**amplificatori di gravità**", ma Jarod 2 non sa la loro funzione. Jarod 2 dice di aver disegnato questi cilindri e i supporti, ma sul simulatore sono fantocci vuoti di cui hanno avuto bisogno soltanto per apparenza. Sono capaci di dondolare su **60 gradi** in ogni direzione, che coincidono con l'angolo che il simulatore intero può basculare sul suo supporto. Un angolo di 60 gradi è bello estremo: Quando la nave si immerge sui 60, uno si aspetta che qualcuno seduto sul ponte di volo non potrebbe restare seduto a meno che non sia legato, ma Jarod mette in rilievo che non ci sono cinture di sicurezza in questo simulatore.

In altre parole, nel simulatore - non proprio nella nave operativa - si mantiene qualche sorta di**gravità artificiale** per mantenere gli operatori nelle loro sedie, e questa gravità **interna** ha niente a che fare con l'"amplificatore di gravità" sotto il ponte. Essendo implicato soltanto nel disegno meccanico dei pannelli di controllo, supporti e housings vari dove andranno poi messe le cose, Jarod 2 non conosce come il sistema di gravità funziona, ma pensa che i pavimenti e muri della nave sono più di sostegni passivi; sono un sistema sofisticato. Jarod 2 descrive il pavimento come una "graticola crollante" che ripetutamente immagazzina una carica elettrico e poi la libera.

(Questo ci confonde un pò, perché anche Lazar riferisce di una "graticola crollante" nel suo poster di disco volante, ma soltanto come una copertura meccanica per un boccaporto sul pavimento)

Perchè abbiamo bisogno di asserire gravità artificiale nel simulatore? Se questo disco poggia su un perno basculante su 60 gradi, ma la **gravità interna neutralizza questo inconveniente** così nessuno ha bisogno di cinture di sicurezza e l'operatore ancora pensa che è seduto diritto, perchè infastidirsi con l'esercizio a tutto? Perchè non mantenere il simulatore orizzontale? Jarod non offre alcuna informazione qui, ma abbiamo la nostra teoria: l'operatore della nave ha bisogno di imparare ad aggiustare la gravità interna per compensare i cambiamenti esterni in angolo ed accelerazione. Se non sono corretti, va a sbattere nei muri della nave.

Ci sono anche banchi di **capacitors** molto sofisticati **imprigionati al ponte principale** sull'uno o l'altro lato del reattore. Ci sono sei capacitors cilindrici, tre sull'uno e l'altro lato del centro, capaci di immagazzinare un'enorme carica elettrica. Jarod 2 li uguaglia alla bobina di un'automobile, che genera un alto voltaggio e genera un arco nelle candele. Non è chiaro se i capacitors sono soltanto nel simulatore o vi sono anche nella nave operativa.

L'energia per il simulatore arriva attraverso i cavi che entrano nel disco vicino alla base basculante, dove entrano anche i tubi di aria condizionata e i cavi di dati. abbiamo chiesto a Jarod 2 perchè i capacitors hanno da essere a bordo del simulatore: Perché non potrebbero mantenerli a terra e portare la loro produzione di potere attraverso i cavi ombelicali? Jarod 2 pensa che, a causa del voltaggio enorme implicato, il capacitors ha da essere più vicino possibile al posto dove si usa la potenza. La produzione dei capacitors scorre direttamente nel reattore (o facsimile di reattore)

Lungo il perimetro esterno della nave, nel mezzo delle pareti laterali di tre piedi, c'è un **anello di anodi imprigionati, circa 48**. Ogni anodo è un cerchio largo circa 3 pollici e si spinge in fuori circa 1/2 pollice dal lato della nave. Jarod sa soltanto che questi generano una sorta di campo elettrico intorno al bordo del simulatore.

Abbiamo difficoltà nel riconciliare le molte manipolazioni di gravità ed elettricità che sembrano essere implicati nella nave operativa. Pare esserci gravità dal pavimento, gravità emessa dagli amplificatori nel deck in basso e gravità sparata attraverso quel tubo nel soffitto. C'è elettricità immagazzinata e liberata dai capacitors, elettricità immagazzinata e liberata nel pavimento, ed elettricità generante un campo intorno all'esterno della nave. Finalmente, questi effetti possono essere aspetti differenti dello stesso **sistema unificato**, ma ora ne vediamo solamente frammenti sconnessi.

La maggior parte del simulatore, e probabilmente anche la nave operativa, è di un composto di **Boro**, che è metallo monotono in apparenza ma è anche molto leggero ed estremamente forte. Un'eccezione è il montaggio del reattore, che Jarod 2 dice essere simile ad acciaio. Il reattore era disegnato da un altro gruppo ed è imprigionato in un buco nel mezzo del ponte principale. Inoltre, il simulatore è composto di quattro pezzi "a fetta di torta" di 90 gradi che potevano essere separati per essere spediti altrove. Dopo che si finì il simulatore, che ha preso due decenni, davvero fu diviso e portato via, probabilmente a una facility segreta nel Nevada.

Fonte: http://web.tiscali.it/no-redirect-tiscali/poma/ufoscience/newphisics/unumpentium115.htm

Elemento 115

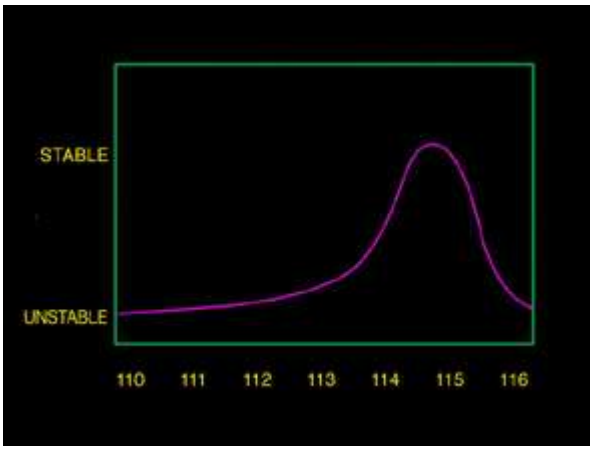
TRAMUTAZIONE: Sintetizziamo elementi più pesanti, instabili usando elementi più stabili come bersagli in un acceleratore di particelle. Allora bombardiamo l'elemento bersaglio con varie particelle atomiche e sub-atomiche. Facendo questo, in realtà forziamo neutroni nel nucleo dell'atomo ed in alcuni casi uniamo due nuclei dissimili insieme. A questo punto accade la tramutazione, creiamo dall'elemento bersaglio un elemento diverso, più pesante.

Per esempio, nei primi anni 80', il laboratorio per la ricerca sugli ioni pesanti in **Darmshtot**, in Germania, ha sintetizzato alcuni **elementi 109** bombardando **bismuto 203** con **ferro 59**.

E per mostrare come è difficile fare questo, hanno dovuto bombardare l'elemento bersaglio per una settimana per sintetizzare 1 atomo di elemento 109. E su questo soggetto, questo stesso laboratorio ha previsto che nel futuro dovrebbero potere bombardare **curium 248** con **calcio 48** per produrre l'**elemento 116** il quale decadrà allora attraverso una serie di nuclides ignoti a loro, ma **ben conosciuti dagli scienziati di S-4**.

La lunghezza di tempo durante la quale un elemento esiste prima che decade determina la sua stabilità. Gli atomi di alcuni elementi decadono più velocemente degli atomi di altri elementi, così più velocemente un elemento decade, più instabile è considerato quell'elemento. Quando un atomo decade, rilascia o irradia particelle sub-atomiche ed energia, quale è la radiazione che rivela un contatore Geiger.

ALTRI PIANETI E SISTEMI STELLARI



Ci sono elementi con numeri atomici più alti che sono stabili, sebbene **non esistono naturalmente sulla terra** e non possiamo sintetizzarli in acceleratori di particelle. Questi sono gli elementi nel campo 114, 115, che non appaiono sulla nostra tabella periodica. Oltre l'elemento 115, gli elementi divengono instabili di nuovo e, difatti, elemento 116 decade in una frazione di secondo.

Il reattore trovato nella nave aliena a S4 è basato primariamente su un elemento superpesante con un numero atomico di 115. L'elemento 115 sarà designato come "**Ununpentium**" secondo gli orientamenti **IUPAC** e da qui sarà riferito con la sua abbreviazione periodica, "**Uup**". La sua designazione periodica e configurazione dell'elettrone appaiono sotto:

proprietà generali

Name	Ununpentium	**Symbol**	Uup
Atomic number	115	**Atomic weight**	

Density @ 293 K	31.5 g/cm3	**Atomic volume**	13.45 cm3/mol
Group	Superheavy elements	**discovered**	1989

Stati

state (s, l, g)	s		
Melting point	1740 C	**boiling point**	3530 K
Heat of fusion	kJ/mol	**Heat of vaporization**	kJ/mol

Energie

1st ionization energy	531 kJ/mole	**electronegativity**	
2nd ionization energy	1756 kJ/mole	**electron affinity**	kJ/mole
3rd ionization energy	2653 kJ/mole	**Specific heat**	J/gK
Heat atomization	kJ/mole atoms		

Apparenza e caratteristiche

structure	fcc: face-centered cubic	**color**	reddish-orange
Uses	Reactor fuel	**toxicity**	unknown
Hardness	mohs	**Characteristics**	Stable

Reazioni

reaction with air		**Reaction with 6M HCl**	
Reaction with 6M HCl		**Reaction with 15M HNO3**	passivated
Reaction with 6M NaOH			

Radius

ionic radius (2- ion)	Pm	**ionic radius (1- ion)**	pm
atomic radius	Pm	**ionic radius (1+ ion)**	pm
Ionic radius (2+ ion)	Pm	**ionic radius (3+ ion)**	pm

Conduttività

thermal conductivity	6.1 J/m-sec-deg	**electrical conductivity**	7.09 1/mohm-cm
Polarizability	20.5 A^3		

Nome: **Ununpentium**

Simbolo: Uup

Numero atomico: 115

Densità del peso atomico @ 293 K: 31,5 g/ cm3

Volume Atomico 13,45 cm3/ mol

Gruppo Superheavy (Superpesanti)

Elemento scoperto nel 1989

Stato (s, l, g) s

Punto di fusione: 1740 C

Punto d'ebollizione: 3530 K

TEORIA

Una sostanza deve avere almeno **un atomo** per essere considerato **materia**.

Deve avere almeno un protone ed un elettrone, e nella maggior parte dei casi un neutrone è considerato materia. Qualche cosa più corto di un atomo come gli upquarks e i downquarks che tengono insieme protoni e neutroni; o protoni, neutroni, o elettroni, individualmente sono considerati essere massa e non costituiscono materia finché non formano un atomo. Ecco perchè si dice che la **gravità A tiene insieme la massa** o la "roba" che tiene insieme protoni e neutroni. Una volta che si forma un atomo, la forza elettromagnetica diventa un fattore sostanziale.

La **gravità A** è quella attualmente identificata come la **forza forte nucleare** nella corrente principale della Fisica e gravità A è l'onda di cui abbiamo bisogno da accedere ed **amplificare** per abilitarvi alla distorsione dello spazio/tempo richiesto per "pratici" viaggi interstellari.

La localizzazione della Gravità A è trovata nel nucleo di ogni atomo di tutta la materia qui sulla terra e l'universo.

Accedere alla Gravità A coi naturali elementi trovati sulla terra è un grande problema.

Ricordiamo che la gravità A è la forza maggiore che tiene insieme la massa costituita da protoni e neutroni ed altre particelle sub-atomiche. Ciò significa che la Gravità A verso cui cerchiamo di accedere è praticamente inaccessibile perché è localizzata **dentro la materia** che abbiamo qui sulla terra.

Ci sono altri elementi che non esistono naturalmente sulla terra e che un piccolo gruppo del governo americano sperimenta. E' chiamato elemento 115 ed ha due proprietà molto insolite.

Propulsione a gravità

Cosa ha a che fare l'elemento 115 con la Gravità?

L'elemento 115 è ottenuto in triangoli come qui illustrato ed è usato per motorizzare il reattore. E' usato per creare una **reazione di trasmutazione** con un **protone addizionale** da 115 a elemento 116 che immediatamente decade e **rilascia antimateria**.

Ma più importante, quando un elemento diviene così pesante da avere 115 protoni e isole di stabilità, la forza cumulativa nucleare forte o "onda di Gravità A" **irradia** o **si estende oltre il perimetro dell'atomo**. **Accediamo** a questa gravità e l'**amplifichiamo**, **focalizzandola** per opporsi di fatto alla gravità naturalmente propagata all'esterno dalla terra. **Questa non è "anti-gravità" e noi non generiamo gravità dal nulla** come alcuni teorici ancora credono.

Questo elemento è allora inserito nel reattore. Questo pezzo di elemento 115 è sia la fonte dell'onda di gravità A, sia il bersaglio che è bombardato con protoni per rilasciare l'anti-materia. Solo **223 grammi di 115**, sono sufficienti per il funzionamento della nave per **30 o 45 anni**.

L'elemento 115 è stato **donato agli americani** dai visitatori stranieri. Questo elemento è usato sia come combustibile che come fonte dell'onda di gravità A.

In virtù dell'elemento 115 usato nel reattore, esso si esaurisce molto lentamente. Un pezzo di 115 di questa taglia può essere usato come combustibile nel reattore del disco per venti o trenta anni.

Il punto di fusione dell'elemento 115 è di 1740 gradi Celsius.

Lo stato di ossidazione standard è +3.

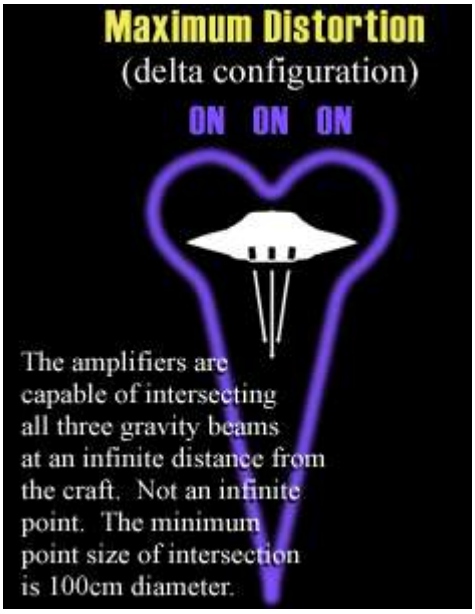
Raggio atomico: di elemento 115 è 1,87 angstroms.

Frequenza dell'onda portante: 7,46 hz @ un un micron di larghezza di banda.

Gli scienziati per anni hanno formulato una teoria che c'erano combinazioni possibili di protoni e neutroni che potrebbero formare **atomi che non appaiono naturalmente sulla terra**. L'ammontare di massa ed elettromagnetismo presente alla creazione dell'universo ha determinato gli elementi formatisi fra quelle galassie e sistemi stellari. Il nostro **Sole** è un nano, comparato alla maggior parte degli altri sistemi stellari e sistemi stellari binari. In altre parole, nessuna sorpresa che gli elementi superpesanti stabili di questi sistemi non esistono naturalmente sulla terra.

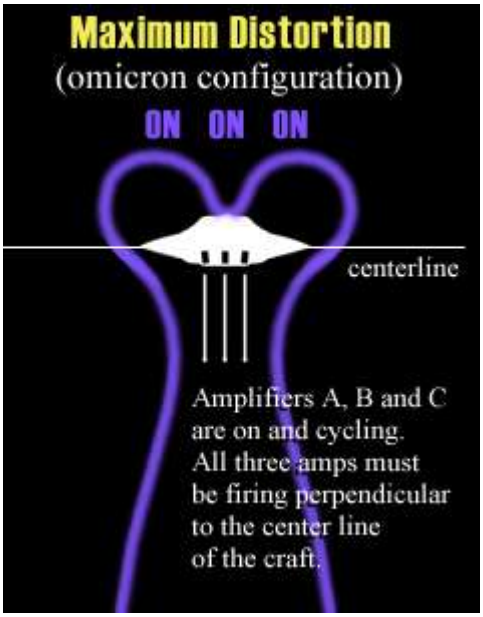
Configurazioni Delta e Omicron.

Configurazione Delta: usare la gravità per viaggi Interstellari.



Quando tutti e tre questi amplificatori sono usati per viaggiare, sono nella configurazione Delta.

Quando noi distorciamo lo spazio/tempo e abbiamo la capacità di generare un intenso campo gravitazionale, allora la via più veloce da un punto A ad un punto B è distorcere, o **curvare lo spazio/tempo tra i punti A e B**, portando i punti A e B più vicini. Più intenso è il campo gravitazionale, più grande è la distorsione dello spazio/tempo e **più corta** è la distanza tra i punti A e B.



Configurazione Omicron: Viaggiare vicino la superficie di pianeti o lune.

Quando per viaggiare **è usato solo un amplificatore**, siamo nella configurazione Omicron.

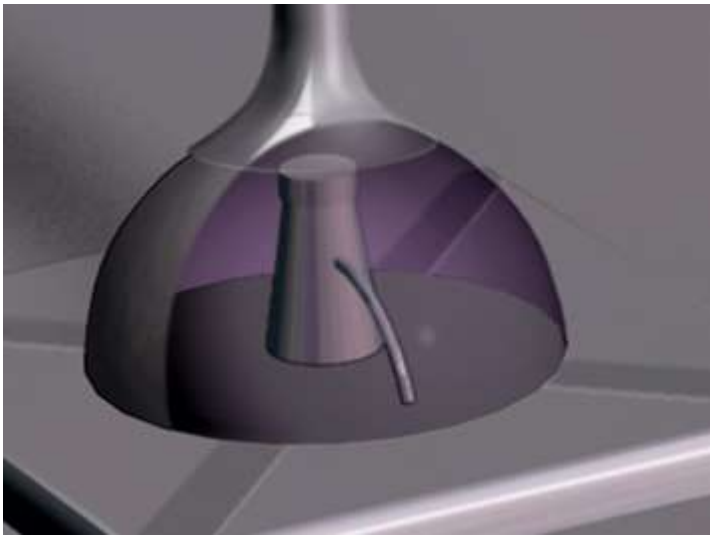
Quando un disco è vicino un'altra fonte di gravità, simile alla terra, l'onda di Gravità A, che si propaga all'esterno del disco, è **spostata di fase** nell'onda di gravità B, che si propaga fuori dalla terra, e questo crea l'innalzamento.

Gli amplificatori di gravità del disco possono essere **focalizzati indipendenteménte** e sono **pulsati** e non stanno accesi continuamente. Nella configurazione Omicron un amplificatore è pulsato e la nave essenzialmente galleggia neutrale e stabile tra queste due gravità e cambia la fase. In questo caso gli **altri due amplificatori sono liberi** di influenzare la nave in una direzione laterale o **usati per prendere qualcosa su**.

L'elemento crudo 115 è stato provvisto agli americani in forma di **dischi**. Gli scienziati a S4 hanno spedito l'elemento dal Lago Groom al Los Alamos National Laboratory, per essere macinato per l'uso nel reattore. A Los Alamos fu detto che era un nuovo modulo di armatura. Semplicemente hanno seguito gli ordini, l'hanno macinato come segue e l'hanno spedito indietro a Lago Groom. Fu durante questo processo che un **pò dell'elemento è risultato mancante**. Come si vedrà dalle pagine seguenti, la macinatura citata produce un ammontare tremendo di scarti.

Il reattore è un sistema chiuso che usa l'elemento 115 come suo combustibile. L'elemento è anche la fonte dell'onda di gravita-A la quale è amplificata per la distorsione dello spazio/tempo e per i viaggi.

Il disco è uno dei nove, donati al governo americano in un programma di "scambio" nei primi 1970. I creatori dela nave e i fornitori del combustibile venivano dal sistema stellare **Zeta Reticuli**. Quello che abbiamo scambiato per la tecnologia non è conosciuto. Un programma di reto-ingegneria è cominciato nel 1979 del rimanente hardware e della tecnologia.



Il Reattore

La fonte del potere è un reattore che usa l'elemento 115 come il suo combustibile. In questo reattore l'elemento 115 è usato come un bersaglio ed è **bombardato con protoni** in un acceleratore di particelle **piccolo**, molto sofisticato. Quando un protone fonde nel nucleo di un atomo di 115, è tramutato e **diviene un atomo di elemento 116**. Benchè noi possiamo anche tramutare elementi qui sulla terra, esso non è fatto tipicamente in questa maniera, o comunque vicino questo livello di efficienza. Inoltre, abbiamo ancora da produrre qualche cosa di più pesante dell'elemento 112. Così come ciascuno atomo di 115 è tramutato nel 116, **immediatamente decade** e produce una radiazione dissimile da quella che normalmente osserviamo in un decadimento nucleare. Ciascun atomo di elemento 116 decade e **rilascia due antiprotoni (anti-idrogeno)**, una forma di **antimateria**. Antimateria può essere prodotta in acceleratori di particelle qui sulla terra, ma solo in piccole quantità e solo per brevi periodi di tempo.

Il flusso di particelle di antimateria prodotte nel reattore sono canalizzate giù su un **tubo di evacuazione** accordato (il quale lo tiene dal contattare la materia che lo circonda) e reagisce con un bersaglio di materia gassosa. Questa reazione di **Annichilazione Totale** è la reazione più efficiente di energica nucleare che c'è. Le reazioni nucleari più familiari sono la Fissione, che produce energia dal frazionamento di atomi come usati nei reattori nucleari e bombe atomiche, e Fusione, la fusione o combinazione di atomi (tipicamente nuclei di idrogeno) che rilasciano anche più energia. Fusione è la reazione che motorizza il sole e le altre stelle ed è quello che dà il loro "punch." alle bombe all'idrogeno.

Queste due reazioni nucleari più comuni sono rimpicciolite dal potere ed efficienza della reazione di annichilazione operante nel reattore alieno.

La reazione tra il bersaglio di materia gassosa e le particelle di 'antimateria producono una liberazione continua di quantità tremende di calore. Questo calore è convertito direttamente in elettricità dall'uso di un generatore termoionico. Il generatore termoionico usato in questo reattore è così efficiente, che non c'è nessuna misurabile scoria di calore prodotta. Questa è una violazione apparente di una delle leggi di base della termodinamica.

Simile, ma non come efficienza o potenza, i generatori termoionici sono usati come fonti di energia nei nostri satelliti e sonde spaziali.

Anche se tutto questo sembra sorprendente ed efficiente, è solo secondario alla funzione primaria del reattore. Il flusso di antiparticelle emesse dall'elemento 115 tramutanti non è la sola energia irradiata durante operazione. Questo è il punto al quale la onda di gravità A è prodotta. L'onda di gravità emessa dalla reazione del 115 appare sull'emisfero del reattore, propagante su una guida d'onda accordata in una maniera molto simile al comportamento delle microonde.

Tutte le azioni e reazioni all'interno del reattore è orchestrato perfettamente come un piccolo balletto, ed in questa maniera, il reattore fornisce una quantità enorme di energia usata per amplificare l'onda di gravità A che così può causare la richiesta distorsione dello spazio/tempo per i viaggi spaziali.

Fonte: http://members.tripod.com/skepsis/files/elemento115.html

Elemento 115 : una possibile risposta al metodo propulsivo impiegato dagli UFO?

Il problema relativo alla genesi del cosiddetto "elemento 115" si inserisce nel contesto della lunga "querelle" inerente le rivelazioni fatte dal sedicente fisico Bob Lazar(1) che, a suo dire, sul finire degli anni '80 avrebbe lavorato nell'ormai famosa "Area 51"(2) sul sistema propulsivo delle macchine aliene che, sempre a suo dire, sarebbero celate in quello che è sicuramente il punto più inaccessibile degli interi Stati Uniti. Le rivelazioni fatte da Lazar, purtroppo, evidenziano la scarsa preparazione di quest'ultimo in problemi subatomici e chimici spingendolo sempre più ai margini della credibilità ufologica e scientifica. Secondo il fisico esisterebbero due tipi di gravità che potrebbero spiegare la propulsione di macchine aliene, una detta di tipo "A" che piega lo spazio – tempo impiegando le masse dei corpi celesti, ed una di tipo "B" che interesserebbe le particelle subatomiche rendendole amplificabili attraverso onde elettromagnetiche con successiva creazione dunque di un campo gravitazionale. E' proprio in questo secondo tipo di "gravità" si inseriscono le dichiarazioni fatte da Lazar sull'elemento 115 che secondo il fisico, se opportunamente sollecitato subirebe una trasformazione a livello nucleare dove, non si sa bene come, acquisirebbe un neutrone trasformandosi in elemento 116. Niente di più falso. L'ottenimento dell'elemento 116 (o ekapolonio) a partire dal 115 appare alquanto improbabile, si tratterebbe infatti, come già detto, di aggiungere un neutrone al nucleo dell'elemento 115 (o exabismuto, come venne definito da alcuni chimici americani ed inglesi che gli assegnarono un posto sotto il comune bismuto nella tabella periodica degli elementi di Mendeleen), un protone e nell'ultimo livello energetico un elettrone. Appare più semplice dunque ottenere del 115 dal 116 e non il contrario, sempre stando alle dichiarazioni del nostro Bob il 116 produrrebbe antimateria che reagirebbe con la materia fornendo energia al 100% senza perdite. tutto questo non ha senso, bombardando il 115 con neutroni si ottiene un isotopo del 116 e non l'elemento 116 come sostenuto da Lazar. A questo punto si che esso diverrebbe meno stabile e genererebbe reazioni atomiche dove comunque l'antimateria non c'entra niente. Dopo queste precisazioni, delle quali chi scrive si scusa se si presentano troppo prolisse, non era sicuramente intenzione di quest'ultimo annoiare chi legge ma solo di fare giuste precisazioni in un bestiario scientifico che talune volte è più fastidioso di quello attaccato dalla nostra sezione "CounterAttack"; dopo queste possiamo finalmente tentare di definire questo fantomatico elemento 115 secondo il poco che si sa su questo, infatti si deve tenere presente che stiamo parlando di un elemento non ancora sintetizzato sulla terra e che contiene ben 115 neutroni nel nucleo atomico (ma ciò non deve impressionare perché si pensa di arrivare a scoprire l'esistenza di elementi fino al 168!). Usando un particolare sistema di calcolo detto REL HFS si possono attribuire alcune proprietà chimiche fondamentali a tale elemento. Esso sarebbe stabile con un numero d'ossidazione +1 +3(3) , il suo potenziale di ionizzazione(4) sarebbe di 1,5 eV (elettronvolt), il calore di sublimazione di 34 Kcal (g atomo) –1. Nella tabella periodica troverebbe come già detto, posto sotto il bismuto ed il suo nome sarebbe appunto ekabismuto. L'interesse maggiore viene però dai calcoli relativistici e quantomeccanici che attribuirebbero all'elettrone più vicino al nucleo situato sull'orbitale 15 una velocità quasi pari a quella della luce e quest'ultima proprietà, secondo quanto sostenuto dall'eminente prof. Corrado Malanga[5] che ha condotto uno studio su tale elemento, non porterebbe alla produzione di antimateria, secondo quanto detto da Lazar (ne avesse azzeccata una!) ma alla creazione di forti campi gravitazionali. Naturalmente, le ricerche in tal senso hanno ancora molto cammino da percorrere, ma già quanto sappiamo su questo elemento 115 segna un altro punto a favore nell'acquisizione scientifica dei dati indispensabili a dare ulteriore peso scientifico ad un fenomeno, quello degli UFO, che sicuramente non può più venire snobbato dalla cosiddetta "scienza ufficiale" di cui ultimamente la prof. Hack ed il prof. Pacini sembrano essere diventati i magnifici depositari, senza ovviamente rimediare brutte figure.

Fonte: http://www.ecn.org/cunfi/el115.htm

QUELLO CHE SI DOVREBBE SAPERE SULL'ELEMENTO 115

di Francesco Casadei, CUN Taranto

L'elemento 115 di Bob Lazar NON E' quello che potrebbe essere sintetizzato presumibilmente tra poco tempo

nei grandi laboratori di ricerca internazionale. In realtà è un suo isotopo "esotico" incredibilmente molto più pesante, ed è presumibile che non verrà sintetizzato sulla Terra per parecchi anni ancora.

Son passati più di dieci anni da quando Bob Lazar raccontò la sua incredibile storia. Agli scettici, questa poteva sembrava null'altro che un ben confezionato pezzo di finction, completo di tutti gli ingredienti necessari per apparire "scientificamente" fondato. E' in effetti non so perché nessuno lo abbia ancora fatto ma la storia di Lazar, senza neanche modificare troppe cose, potrebbe essere facilmente tradotta in un eccellente film. La trama tra l'altro non avrebbe bisogno nemmeno di appartenere al genere della fantascienza, ma potrebbe benissimo rientrare nel novero di quei film con sfondo scientificamente altamente credibile, imperniati sulla vicenda di un cittadino-scienziato coinvolto senza averlo chiesto nelle attività dei laboratori supersegreti di una grande potenza. Il pezzo forte del film avrebbe potuto essere lo sconcerto che questa persona avrebbe provato nello scoprire che il mondo è effettivamente molto diverso da come lui lo aveva sempre creduto, e che perciò per tutta la vita fino a quel momento lui era stato vittima di un colossale raggiro come d'altronde il resto del mondo, tra cui noi. Certo che con un regista molto bravo sarebbe stato un successone. E poi, ve la immaginate la scena dove il protagonista si trova per la prima volta davanti ad una macchina non fabbricata da esseri umani? Vi immaginate il suo genuino stupore e la sua incredibile eccitazione nel poter esaminare da vicino una cosa fatta da mani non umane, per essere usata da mani non umane, da una cultura che non è la nostra, e che magari è completamente diversa dalla nostra, anche mettendo da parte l'enorme divario scientifico e tecnologico? E che dire poi della scena di quella in cui assiste al test di volo? Chi di noi non sarebbe disposto a tutto pur di trovarsi in una situazione simile?

Bene, da quando Lazar andò al pubblico sono accadute molte cose e molte di quelle informazioni che lui aveva rilasciato in televisione si sono andate rivelate corrette. Ad esempio nel 1994 è stato pubblicato sulla rivista scientifica "Classical and Quantum Gravity" un lavoro dal titolo "The Warp Drive: Hyper-fast Travel Within General Relativity". In questo lavoro il Dr. Miguel Alcubierre descriveva con grande rigore scientifico il metodo che teoricamente avrebbe consentito ad un'astronave di spostarsi tra le stelle a velocità incredibili al punto che persino i fotoni avrebbero potuto considerarsi al pari delle lumache. Il tutto veniva giustificato nell'ambito dello stesso formalismo della teoria della relatività generale di Einstein.

In pratica il trucco consisteva nel creare una bolla di spazio-tempo curvo intorno ad un'astronave, ma non mi soffermerò sui dettagli perché questa è un'altra storia, che merito uno spazio a sé. Faccio soltanto notare che da allora molta altra gente ha lavorato sulla stessa questione, e che di questo argomento si parla da parecchio tempo ormai anche su alcuni siti Internet della NASA. La cosa, infine è andata agli occhi del grande pubblico con il numero di Gennaio 2000 (simbolico, no?) della rivista Scientific American, a cui è seguita la produzione italiana sul numero di Marzo 2000 di Le Scienze. Molti non hanno mancato di osservare, anche ovviamente sulla rivista che avete in mano, che il principio di propulsione basato sulla bolla spazio-temporale confermava in pratica cose che Lazar aveva già detto prima di Alcubierre e aveva anche illustrato a colori sul suo sito Internet. Allo stesso tempo, meraviglia delle meraviglie, sullo stesso numero di Gennaio di Scientific American, e quindi anche sul numero di Marzo di Le Scienze in Italia, compariva l'articolo sull'Isola di Stabilità che è stata finalmente trovata nel "mare" degli elementi transuranici. E il pensiero di tutti è andato di nuovo a Lazar, che aveva anche dichiarato che il combustibile del fantascientifoco reattore nucleare che forniva una quantità enorme di energia al disco volante alieno allo studio del quale lui lavorava, l'oramai leggendario elemento 115, era un transuranico stabile. Ci siamo tutti chiesti: possibile che sia stato solo un caso la contemporanea comparsa di questi due articoli proprio sul numero di Gennaio 2000 di Scientific American che proprio per la sua data di pubblicazione rivestiva in un certo senso il carattere "simbolico" di apertura di una nuova era? Non ci è dato, purtroppo, di conoscere la risposta a questa domanda. Tuttavia sento che è importante in questa fase far conoscere qual è la situazione reale per quel che riguarda questo "santo Graal" degli ufologi. Dal tempo in cui Lazar fece le sue rivelazioni, l'attenzione degli ufologi veniva frequentemente rivolta ai progressi fatti dai vari laboratori mondiali come Berkeley, Darmstadt e Dubna nel campo della sintesi degli elementi oltre l'uranio. Dopo la notizia della sintesi dell'elemento 114 nel Dicembre 1999 a Dubna, oramai si pensava vicino il momento in cui sarebbe stata annunciata la sintesi del 115, e confermata definitivamente la sostanza delle affermazioni di Lazar. Ritengo tuttavia che nella realtà le cose potrebbero non andare esattamente così. Permettetemi un momento di darvi alcune informazioni di base prima di entrare nel vivo dell'argomento. Quello che distingue un elemento da un altro nella tavola periodica è praticamente il numero dei protoni contenuti nel nucleo: così l'idrogeno è il primo di tutti (1 solo protone), mentre l'uranio si trova al posto 92 (92 protoni).

Elementi con oltre 92 protoni non si trovano sulla Terra e devono essere prodotti artificialmente. Poiché questi elementi stanno sulla tavola periodica dopo l'uranio, si chiamano tutti...transuranici. Oltre ai protoni, nei nuclei degli atomi ci sono anche i neutroni, ma mentre i protoni sono carichi elettricamente, i neutroni non lo sono; sono appunto...neutri.

COSA È UN ISOTOPO?

Prendiamo un atomo di Carbonio. Questo ha sempre 6 protoni, e in genere ha anche 6 neutroni; ma non sempre ha 6 neutroni. C'è una piccola percentuale di atomi di carbonio che hanno meno di 6 neutroni o più di 6 neutroni. I più conosciuti sono quelli che hanno 7 oppure 8 neutroni. Sotto ogni punto di vista questi sono sempre atomi di carbonio esattamente come gli altri. Possono formare anche loro l'anidride carbonica, il metano o qualunque altro composto di questo elemento; soltanto sono un poco più pesanti perché hanno 1 o 2 protoni in più. Ma in ogni caso occupano sempre il posto numero 6 della tavola periodica (perché il posto dipende solo dal numero dei protoni). I fisici dicono che tutti gli atomi che occupano lo stesso posto nella tavola periodica si chiamano isotopi (e infatti in greco isotopo significa stesso posto). In particolare il carbonio con 6 neutroni si chiama carbonio 12, metre gli atoòi di carbonio con sette e otto neutroni si cjiamano rispettivamente carbonio 13 e carbonio 14. I numeri 12,13,14 sono evidentemente la somma dei protini più i neutroni. Come si può vedere abbiamo definito in poche parole cos'è un isotopo, senza usare troppi termini tecnici; spero che i lettori me ne saranno grati.

Ultime note: mentre come detto le proprietà chimiche sono le stesse per tutti gli isotopi di uno stesso elemento,così non è per le proprietà nucleari: ad esempio, il carbonio 12 è stabile, mentre il carbonio 14 è radiottivo, cioè instabile! Nella tavola periodica questo è un fatto abbastanza comune. Il variare del numero dei neutroni,(non importa se in più o in meno) può dare luogo ad isotopi instabili o a isotopi radiottivi. E inoltre l'affermazione che faccio qui sotto è molto importante per capire l'enormità di quelloche dirò nel seguito a proposito del 115 di Lazar: in genere gli isotopi di un certo elemento sono pochi e si differenziano solo per pochissimi neutroni in più o in meno che in genere si posssono contare sulla punta delle dita. Se sapete un po' di Inglese e volete entrare nel mondo degli elemnti, e sapere un mucchio di cose interranti non solo sulla loro stabilità e su tutti i loro isotopi , ma anche sulla loro storia, su che aspetto ha, etc, vi consiglio di andare a vedere il sito: http//www.webelements.com/webelements/scholar/index.html.

L'ISOLA DI STABILITÀ

Allora veniamo al punto: Cos'è questa storia dell'isola di stabilità di cui si parla su Scientific American? Diciamo subito che fino ad ora non è stato sintetizzato sulla Terra un solo atomo, dico uno solo, di un elemento transuranico che sia stabile. Gelo tra l'Uditorio... ma allora ? niente paura:

Oganessian e colleghi (gli autori dell'articolo pubblicato su Le Scienze) sono sicuri di avere trovato l'Isola di Stabilità perché hanno ottenuto un isotopo dell'elemento 114 dalla vita lunghissima...ben 30 secondi. Ma allora se vive solo 30 secondi non è stabile! E' infatti io che avevo detto? Dovete sapere che, teoricamente, l'isotopo stabile del 114, quello che da parecchie decine di anni faceva immaginare ai fisici che ci fosse l'Isola di stabilità, a un totale di 298 tra protoni e neutroni. Quindi il suo nucleo contiene 114 protoni e 184 neutroni. Oganessian e colleghi hanno sintetizzato soltanto l'isotopo 289, quindi l'isotopo che ha 9 neutroni in meno di quanto sarebbe necessario. Questo, come già detto, ha una vita media di circa 30 secondi. La cosa grossa è che un isotopo del 114 con 2 neutroni in meno, il 287, anch'esso sintetizzato a Dubna, aveva vita media di 5 secondi, mentre il 285 (4 neutroni in meno), che era stato sintetizzato nel 1999 negli esperimenti di Nivov, Gregorich e colleghi a Berkeley (www.ibl.gov/Science-Articles/ Archive/elements-116-118.html) aveva una vita media di soli 0,58 millisecondi [Phys. Rev. Lett. 83, 1104 (1999)]. 4 neutroni in più avevano allora fatto aumentare la vita media dell'elemento 114 di più di 10.000 volte! E mancano ancora altri 9 neutroni!

Si presuppone pertanto che aumentando i neutroni la vita media si allunghi a dismisura fino ad ottenere la totale stabilità. Un fatto analogo e forse ancora più spettacolare nei numeri è accaduto anche per l'elemento 112. Questi risultati hanno convinto tutti che: la stabilità è a portata di mano, ma a patto di riuscire infilare più neutroni in quei benedetti nuclei.

(Ricordatevi questa affermazione perché è molto importante nel seguito). Pertanto l'isotopo 298 dell'elemento 114 sarà stabile con certezza quasi assoluta.

Perdonatemi se vi sto a riempire la testa di numeri e paroloni, tuttavia ho scoperto che nell'Ufologia è molto importante conoscere un po' di Fisica. Nel mio caso addirittura, dopo aver avuto un incontro ravvicinato del 1° tipo con un UFO qualche anno fa, è d'obbligo cercare d'applicare la Fisica per spiegare cose che so con certezza che esisitono, per averle viste. Magari sbaglierò e la nostra fisica è ancora lontanissima anche dai concetti più semplici utilizzati dagli ET, tuttavia io credo che noi abbiamo già le conoscenze di base per capire molte cose, e perciò quello che vorrei sinceramente è stimolare una discussione che porit a ridurre le molte zone in ombra.

Ho avuto in questi anni dopo l'IR 1 molte interazioni con varie persone sull'argomento, e devo dire che i più scettici sono stati i non scienziati. In effetti gli scettici più accaniti erano le persone con meno conoscenze scientifiche, quelle per intenderci, che per credere a qualche cosa hanno bisogna che glielo dica il Prof. Zichichi alla televisione.

Mi piacerebbe parlare un giorno di quello che si può ipotizzare oggi sul principio della propulsione degli UFO partendo dalla fisica conosciuta, per far vedere a tutti in maniera scioccante che perfino George Adamski sapeva particolari intorno alla propulsione di un disco volante che in realtà non avrebbe dovuto sapere, sia per via della sua personale cultura di base, sia per il periodo storici in cui viveva.

L'ELEMENTO 115 STABILE

Dopo aver letto la notizia della sintesi dell'isotopo 289 dell'elemento 114, mi sono subito detto: allora l'elemento 115 stabile dovrebbe essere all'incirca l'isotopo 300 o 301 (cioè un protone più 1 o 2 neutroni in più dell'isotopo 298 teoricamente stabile del 114). Possibile che arrivati a questo punto la materia atomica consenta una "svolta" così straordinaria, sempre secondo quanto diceva Lazar? Forse siamo vicini ad un salto gigantesco della nostra fisica? Stiamo per sintetizzare l'elemento fondamentale per avere il volo interstellare? Mi è venuta subito la curiosità di vedere il suo sito (www.boblazar.com) quale isotopo del 115 usavano gli ET. E qui ho avuto la sorpresa: non era riportato l'isotopo. Guardate la tabella più sotto, che riporta gli stessi dati forniti da Lazar: la voce "peso atomico" che è quella importante per avere un'idea abbastanza precisa dell'isotopo, semplicemente non c'è. Dopo un primo attimo di smarrimento ho notato tuttavia che venivano dati gli elementi per calcolarlo, nelle voci densità e volume atomico.

(*) il 115 non è ancora stato ufficialmente sintetizzato: la data indicata da Lazar si riferisce alla scoperta di questo elemento durante la retroingegnerizzazione del reattore nucleare di un disco volante.

Senza che vi stia a fare tutti i conti si può da questi dati calcolare il peso dell'atomo 115 di Lazar in termini di unità di massa atomica, e cioè di neutroni e protoni contenuti. Il risultato non è 300 o giù di lì, ma...420!!! Che vuol dire questo? Che il nucleo peso l'equivalente di ben 120 neutroni in più di quanto ci si aspetterebbe.

Non vorrei per ora stare a commentare o fare dietrologie sul significato di questo punto. Mi interessa tuttavia stimolare delle discussioni: perciò mi limiterò a mettere luce soltanto alcuni punti rilevanti che sicuramente sono utili per ogni discussione successiva.

Prima di tutto: Lazar si è sbagliato?

La mia opinione è no. Il peso atomico è un dato molto importante ed è sicuramente uno dei primi numeri che sono stati calcolati. Lui è sicuramente a conoscenza del fatto che questo isotopo del 115 è assolutamente esotico.

Allora perché non lo ha voluto riportare espressamente nella tabella, anche se ha dato lo stesso i parametri per calcolarlo?

Non lo so, ma di certo questo è stato fatto deliberatamente.

Ma perché è così eccezionale il fatto che questo sia l'isotopo 420 dell'elemento 115?

Per capirlo tenete presenti le due affermazione che ho fatto prima:

- in genere gli isotopi di un certo elemento sono pochi e si differenziano solo per pochissimi neutroni in più o in

meno, che si possono contare sulla punta delle dita.

- la stabilità è a portata di mano, ma a patto di riuscire infilare più neutroni in quei benedetti nucle.

Bene, la prima mette in evidenza che la nostra esperienza accumulata nell'arco del ventesimo secolo con tutti gli elementi finora conosciuti, non contiene in alcuna maniera evidenza di isotopi con un numero enorme di neutroni, e quindi rende rivoluzionarie, se sono vere, queste dichiarazioni di Lazar nel campo della fisica atomica. La seconda mette in evidenza il fatto che noi già abbiamo oggi difficoltà a creare nuclei transuranici con un numero normale di neutroni (perché questi nuclei vengono ottenuti facendo urtare e fondere assieme due nuclei più leggeri, che in proporzione hanno però meno neutroni di quelli pesanti: il risultato è perciò che siamo sempre a corto di neutroni). Quindi riuscire ad ottenere un nucleo con addirittura 120 neutroni in più del normale è aldilà delle possibilità attuali. Probabilmente questi esperimenti di sintesi dovrebbero essere fatti vicino a una sorgente brillante di neutroni, per poter migliorare le cose. In ogni caso, 120 neutroni in più sono tanti e la conclusione è una sola: che siamo ancora veramente molto lonatni dal poter sintetizzare quel tipo di nucleo.

E' plausibile che esista un nucleo simile?

Perché no?

Ed e' plausibile che questo nucleo abbia le proprietà descritte da Lazar?

Perché no? E se fosse un plasma di quark e gluoni stabile? (spero che vi riuscirò a parlare in seguito di questo nuovo stato della materia). In questo caso potrebbe, sotto forte eccitazione nucleare, emettere per emissione stimolata un fascio molto intensa di mesoni carichi con la carica del quanto della forza nucleare forte? Fascio che costituirebbe a tutti gli effetti l'onda della cosidetta "gravità A" di cui parla Lazar? (non si dimentichi che Lazar nella sua parentesi lavorativa a contatto con i dischi volanti aveva lavorato proprio al laboratori mesoni).

Visto che il 115 stabile di Lazar è l'isotopo 420, potrebbe allora accadere che il più normale isotopo 300 (cioè quello che potrebbe essere sintetizzato da qui a poco tempo) NON SIA STABILE?

Certo, potrebbe anche accadere che l'isotopo 300 o 301 dell'elemento 115 NON SIA STABILE! Con gravi conseguenze sull'Ufologia. Tutti superficialmente direbbero che il 115 di Lazar non è stabile e che lui è stato quindi un impostore. Per tale motivo ritengo sia molto importante prendere coscienza di questo fatto dell'isotopo 420.

E cosa accadrebbe invece se anche l'isotopo 300 o 301 del 115 fosse stabile?

Nulla; almeno in un primo momento non accadrebbe nulla. Tutti direbbero che le affermazioni di Lazar sono state confermate definitivamente, anche se da quello che avete letto più sopra capite subito che non sarebbe la verità. I problemi salterebbero fuori dopo molto tempo, una volta sintetizzata una quantità significativa di questo isotopo, quando si scoprirebbe che non ha nessuna delle proprietà attribuitegli da Lazar. Anche in questo caso sarebbe un grosso colpo per l'Ufologia se si arrivasse impreparati a questo momento.

In realtà si capisce adesso che l'affermazione più forte del nostro Bob non è assolutamente, come tutti credono, la stabilità del banale isotopo 300 o 301 dell'elemento 115. Alla luce di quanto abbiamo infatti visto in questo articolo, lui non ha proprio detto nulla relativamente a questo isotopo 300 o 301. Lui ha sempre e soltanto parlato dell'isotopo 420 anche se non lo ha fatto capire mai chiaramente. Pertanto si può dire che la sua affermazione più forte (e pertanto la sua predizione da verificare) è la seguente:

"*Possono esistere transuranici stabili con un numero enorme di neutroni nel nuclueo. Ad esempio può esistere l'isotopo 420, stabile, dell'elemento 115.*"

In conclusione ora sappiamo che il 115 di Lazar non è l'isotopo che tutti credono, e che potrebbe essere sintetizzato tra poco tempo. In realtà è un oggetto molto più sofisticato, e per comprederne le proprietà in termini di fisica terrestre sono ancora necessari parecchi anni.

Fonte: http://www.abovetopsecret.com/pages/portals.html

THE U.S. GOVERNMENT, DIMENSIONAL PORTALS AND DR. WEN HO LEE

THE REST OF THE STORY

By Richard Boylan, Ph.D.

This story may exceed what you are accustomed to consider as reality. But because advanced research and development into extraterrestrial-derived technology has taken place for the last 50 years out of public view, the popular view of reality is almost five decades behind actual scientific achievements. To process this story, it helps if you accept that the government is not totally forthcoming in the news stories it feeds the media. It also helps to realize that the government uses the word "nuclear secrets" as a code phrase for all kinds of secret advanced technology, such as antigravity propulsion and psychotronic remote-influencing devices, and not just for atomic weapons.

An ex-NSA consultant who has been reliable in the past informs me that government scientists working at Los Alamos "Nuclear" Laboratory, NM have succeeded in generating a holographic portal. They have used this portal to travel across space-time, and possibly interdimensionally, and have seen into another world. What they saw there, my informant says cryptically, both frightened and intrigued them. He did not add any additional details.

This research would be a follow-on to previous secret government successful research into time travel and teleportation, Los Alamos physicist Robert Lazar told about the government's Project Galileo research into time travel, which he was briefed on when he worked at the S-4 Base south of Area 51.

My NSA contact confirmed that the government has succeeded in time travel, but also considers it a dangerous technology. Teleportation research conducted at the Lawrence Livermore/Sandia National Laboratories, CA has had some successful results, as well. Certain extraterrestrial races have been using portals of their own devising to visit earth. Now the U.S. government, ever avaricious to copy ET technology, has created a primitive but working model of its own. Dr. Wen Ho Lee, nuclear scientist in the headlines, worked on that holographic portal project, along with other scientists. You will recall that Dr. Lee was accused by the government of copying U.S. "nuclear secrets" onto a non-secure computer tape. In the previously-lax security environment of the professorial Los Alamos Labs, run by the University of California, and accustomed to informal exchange of information among research colleagues, such "lapses of security" have been epidemic. If every LANL scientist who took short-cuts around certain security measures were prosecuted, Los Alamos would be a ghost town.

Why, then, was Wen Ho Lee singled out for such severe and unconstitutional nine months of imprisonment without bail and defamation-by-headlines? What does Dr. Lee know about portal secrets, that the government used the severest measures to silence and discredit him? Recently, a plea-bargain was entered into by the U.S. government and Wen Ho Lee, in which 58 felony counts were dropped, and U.S District Court Judge James Parker apologized to Dr. Lee for government misconduct which has "embarassed this entire nation." My ex-NSA consultant indicated that the plea-bargain was achieved because Dr. Lee, like so many who work in National Security areas, created a "Get Out Of Jail Free" card for himself. These scientists uses self-protective measures such as stashing information embarassing to the government in safety- deposit boxes or with trusted friends, with the proviso that if anything should happen to them, the contents would be shared with the press. The efforts of his family and many friends, and the Asaian-American community also helped create a public climate where Dr. Lee was not going to serve quietly as a sacrificial lamb.
And now, as Paul Harvey would say, you have the Rest of the Story.

Richard Boylan, Ph.D.

Post-script: "They" did not want you to have this story. When my ex-NSA informant e-mailed me this information, someone penetrated his state-of-the-art encryption and implanted a virus which caused my server to freeze up on his exact message and not download it, and thus blockade all my other incoming e-mail messages. It took two days of work and technical support help to develop a go-around of the freeze-bug. Now I am a mild-mannered reporter, but when "they" try to prevent the truth from coming out, I just become more determined to have it see the light of day. And here you have it.
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Fonte: www.lescienze.it

notiziario

06.01.2004

Un nanotubo per antenna

Transistor a nanotubi di carbonio migliorano l'elaborazione dei segnali elettrici

Nel futuro, le immagini ricevute da telefoni cellulari e televisori potrebbero risultare molto più chiare e nitide grazie a minuscole antenne migliaia di volte più sottili di un capello umano. Questo, almeno, è quanto prevede un ricercatore dell'Università della South California che sta lavorando sui transistor a nanotubi.

Bart Kosko, docente di ingegneria elettrica, ha dimostrato per la prima volta che antenne nanometriche, sotto forma di transistor a nanotubi di carbonio, possono migliorare notevolmente l'elaborazione di segnali elettrici: uno sviluppo che potrebbe aprire la strada verso dispositivi elettronici di consumo con prestazioni superiori.

La scoperta si aggiunge a un numero sempre crescente di promettenti innovazioni tecnologiche basate sui nanotubi: fra queste, porte logiche per computer e diodi per pannelli luminosi. Lo studio è stato pubblicato sul numero di dicembre 2003 della rivista "Nano Letters".

"Nessuno sa esattamente come funzionano questi minuscoli tubi di carbonio, - spiega Kosko - o persino se sarà possibile una loro fabbricazione su larga scala. Comunque sono sorprendentemente efficaci per rivelare segnali elettrici. Una volta compresi tutti i parametri necessari per sintonizzarli con precisione, sia fisicamente sia chimicamente, speriamo di poterli trasformare in piccole e potenti antenne".

Lo scienziato prevede che, se tutto va bene, i tubi potranno cominciare a far parte di prodotti in commercio entro cinque o dieci anni.

per approfondire

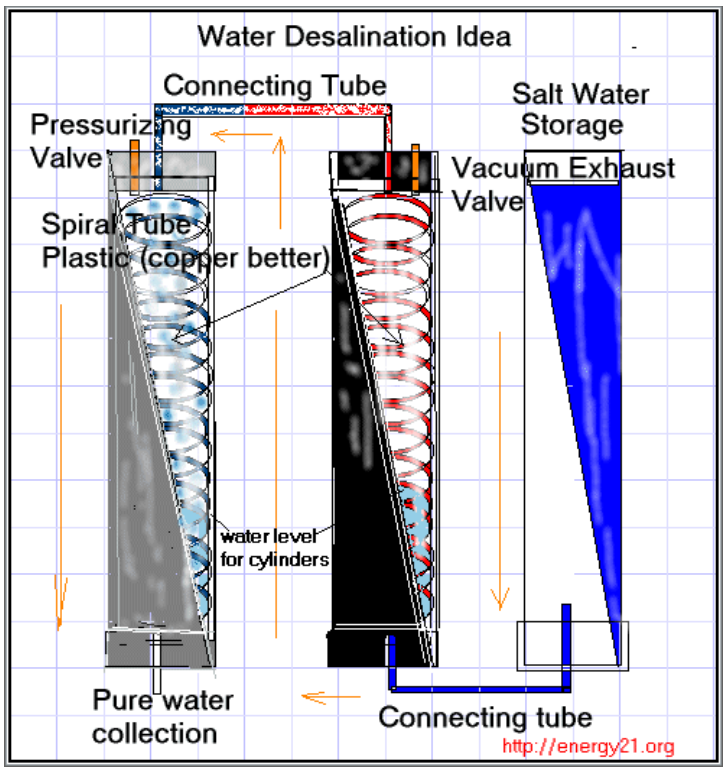
I più piccoli nanotubi mai costruiti

Un transistor a nanotubo

Il nanotubo più piccolo al mondo

Fonte: http://www.fortunecity.com/greenfield/bp/16/desalinator.htm

A novel idea for a salt water desalinator



I have tried several methods to desalinate water many which appear on the energy21 collection of web sites.

The methods I have tried so far tend to work but are not very efficient unfortunately. Mostly I had to complete against pressure as the closed container heated up the water vapor ceased to be produced at a point where the pressure inside the vessel could not be increased and the vaporizing and condensation reaches a standstill.

It seems water under pressure takes a lot more heat to allow it to boil,(such as case in super heated steam in most power generators.
However the opposite is true when the pressure on the water is reduced such as in a partial vacuum.
This method below although not yet tried by me may provide a better result.

The idea for this design came to me after seeing a science demonstration on Australian channel seven afternoon television childrens program called The Big Arvo.

If you wish to reproduce the experiment for yourself ,here are some brief details.
The science demonstration explained of how to produce a cloud.
It consist of a coke cola plastic 2 litre bottle.
The bottle had some hot water added to it ,probably about 1/2 litre or less in volume.
A match was lit and some ash was added from the burning match to the plastic bottle.
The bottle was again resealed and then plastic bottle was squeezed to compressed the contents (air) water can not be compressed.
When the coke bottle was re opened water vapor came out the bottle in the form of a small water cloud.

The Suggested method of desalination

I have tried to think of a method where this means could be used to produce clean water using solar energy and have come up with idea that may work although I have not tried it yet myself.`

If you look at the drawing above you will see three large plastic (or metal cylinders) ,I see them as being 6 inch plastic PVC tube of a suitable length and fitted with end caps
One Tube has one end cap with a brass fitting at bottom and this then is used as a water replacement container and allows feed water (saline) into the second tube and into a spiral enclosed within the second cylinder,the pathway is shown in red.

All cylinders are made airtight apart from the water storage section and the spiral coil must be wound into PVC tube to enter at the bottom and exit at the top and the reverse is true for the third cylinder as per diagram above.

I expect the water level to be maintained so that water in second tubing to be at a level somewhere near the top area as shown in red spiral path in diagram.
The saline water feed tube starts at the bottom and works it way to the exit at top of cylinder and pushes vapor into the next third cylinder.

This second 6 inch tube must be made air tight painted black to allow maximum heating of outer tube by solar energy and has some water or some other fluid also added in it.
A value is also fitted to allow a vacuum pump to reduce the pressure in the second six inch PVC tubing and then when exhausted closed ,so that a low pressure area is maintained whin the tube.

If you don't have a vacuum pump,

Another method may be to placed some water in this outer tube and then heat it by solar means,so that as the water warms,the air will be driven out though this valve.
This then closed off.
Putting very Hot water in this PVC tube may also work. But as a whole the greater the vacuum you can get in this area the better I think it will work.

The third cylinder

The third cylinder is constructed as previously described as the second cylinder.

But the difference is that this tube is pressurized and wrapped in aluminium foil to reflect any heat from the sun.

I think that by inserting a bike value in the end cap at top position and by using a bicycle pump to pressurized this third cylinder.

An idea, also occurs to me that this third cylinder could also be submerged in a water bath(a 44 gallon drum perhaps) as well,this bath would completely cover this cooling vessel and normal evaporation from this bath would also help to keep this cooling tube area cool as well.

Both cylinders would need a small amount water placed in them, but separate from that which is flowing through the two spiral tubes from the water storage area and into the distilled water collection point as show in diagram above.

This is how I feel the unit would work,

Saline Water is fed by means of gravity and through the plastic spiral where it is heated from the heat gathered from the environment and because of the vacuum means a lower boiling point heat will be transferred to flowing saline water and allows it to vaporize at top of the tube.
This vapor is then pushed through the spiral plastic tube and then enters into the pressurized region of the third tube where it condenses and flows in to a collection area below the tube.

Making a good seal in end caps.

With previous experiments when inserting brass fittings I found it impossible to get a good air tight seal ,then I tried adding some fibre glass resin in the end caps and then letting it set around the brass fittings, I found the fibre glass has a tendency to close around metal objects and this makes it an excellent means for making air tight

seals especially in slight pressurized applications as described here.

Then Plastic PVC cement is applied to the end caps and the 6 inch PVC cylinders walls and pressed fitted together and let dry.

I am unsure how it would work in a slightly low pressure area as is the case for the third cylinder as describe here within.

I have suggested using plastic tube (1/4") for the two spiral coils in the cylinder ,but however I feel copper piping would allow better heating and cooling transfers to the liquid within.

I see the unit as a stand up affair with the each PVC pipe standing or angled to make the maximum use of the solar heating in the area especially the second tube.

The third section cooling section could be placed in the shade or in a cooler location.

Like some comment

As I have mentioned before this is only an idea and the idea may have some flaws ,and if you have some additional comments or partial experience in this type of thing I would like to hear from you.

I see some flaws on your design. One. The vacuum on the middle cilinder will not get through the spiral tube, and if it goes (making the tube from some kind of plastic) it will be there as long as there are not water vapor presure inside it. As a matter of fact, the cooling on the last cilinder could be more effective on lowering the presure on the Tube as the vapour condenses. Two. As the water evaporates from the coil it will leave salt on the tube and increase the concentration on the remaining water which also increases the boiling point making it difficult to evaporate more. You need to change this water and loose the heat it gained or put so much of it that the increase in salt will not be a problem.

I still prefere the oldest method. A pan not to deep (12 inch diam. 4 inch deep) painted in black with a tube in the middle going through the bottom of the pan. Put a funnel on the tube and cover the pan with some clear plastic like the one of fruit bags and tie it to the sides of the pan. Put a little stone on the plastic just in top of the funnel and put it all to the sun and fill with salt water.

As the water evaporates it will condensate on the plastic and flow to the lower part (the stone) and drip on the funnel out of the pan.You can change the water in the morning as it will be the coldest to keep the salt level down. You can put leaves insted of salt water or chppoed cactus in the desert and they all will evaporate and give clean water.

PD. I am mexican so please forgive my english. Regards, Armando.

Geoff

Bernardo Zanini.

LABORATORIO DI RICERCA GEOBIOLOGICA

Vengono riportati qui di seguito due interventi effettuati nello scorso autunno mirati a ripristinare un flusso armonico delle energie presenti nelle zone investigate. Il primo caso tratta di un negozio il cui andamento commerciale sembrava praticamente compromesso dalla distorsione dei flussi delle energie geopatogene presenti; mentre il secondo caso tratta di una famiglia, le cui precarie condizioni di salute erano dovute in gran parte alle energie geopatogene presenti nella casa, che influivano in modo negativo sui loro organismi.

PRIMO CASO

Nel mese di Settembre del 2003, sono stato chiamato per un intervento mirato a risolvere una situazione problematica in un negozio di articoli da regalo e prodotti di cosmesi in una cittadina vicino a Crema. L'esercizio era situato in posizione centrale, nella via principale del centro storico, ma nonostante la posizione privilegiata e strategica, da un punto di vista commerciale, l'attività non riusciva a decollare e all'interno si avvertiva un senso di oppressione. La prima analisi, compiuta all'interno del negozio, è stata effettuata con un biotensor collegato ad una apparecchiatura, costruita dallo scrivente e chiamata " Biosimil ", un pendolo Galileiano per la ricerca di frequenze, un'antenna Hartmann, un generatore elettrico di rumore bianco ed uno strumento per la misurazione della vitalità del luogo.
La ricerca sul campo con le strumentazioni ha evidenziato numerosi fattori di rischio:

11) **Disarmonia del luogo**
12) **Polluzione elettrica**
13) **Memoria dei muri**
14) **Memoria del pavimento**
15) **Ingorgo di energie cosmo/telluriche**
16) **Verde elettrico negativo**
17) **Nodi di Hartmann**
18) **Nodi di Curry**
19) **Faglia geologica**
20) **Falda acquifera**

Si è potuto determinare che i problemi della memoria dei muri e della pavimentazione in cotto erano dovuti a resti animali; un pozzo artesiano chiuso situato all'interno del negozio che, anche se abbellito con un vistoso vaso di fiori posto al di sopra, presentava una disarmonia di energie cosmo/telluriche; il muro situato dietro alla cassa in mattoni a vista in rilievo, fatto risaltare da un architetto che aveva coordinato i lavori ed il progetto di ristrutturazione dello stabile, conferiva un'appessantimento alla parete ed ansia a chi si sedeva alla cassa.
Altri problemi erano dovuti all'uso errato delle luci di illuminazione, sia del negozio che delle vetrine situate ai lati di un piccolo corridoio. Quest'ultimo presentava un soffitto piramidale posto all'entrata e degli infissi decorativi in legno fatti a forma di piramide stilizzata dal cui vertice si è constatato veniva emessa la frequenza del verde elettrico negativo che disturbava i clienti. Due nodi di Hartmann e tre nodi di Curry, erano situati al centro del negozio, ma essendo stati rilevati su tratti della pavimentazione, che fungono da passaggio obbligato e non di sosta, non rappresentavano un serio pericolo per i potenziali clienti mentre visti in un'ottica globale, contribuivano ad esasperare l'armonia del luogo.
L'esame col generatore elettronico di rumore bianco ha permesso di seguire in tutto il negozio la polluzione elettrica e l'effluvio effettivo generato in altezza e in lunghezza.
Lo strumento che misura la vitalità del luogo, che non è altro che una scala Bovis attaccata ad un biotensor, ha evidenziato una disarmonia con valori variabili tra i trenta e i quaranta Angstrom

Successivamente è stato rifatto l'esame completo sulla piantina del negozio con il Biosimil, attraverso lo spettro magnetico cellulare, che ha dato gli stessi risultati dello studio sul campo.
In ultima analisi si è cercato di raccogliere informazioni tramite la consultazione dell'archivio comunale, della biblioteca ed anche attingendo al patrimonio orale tramite interviste con proprietari di negozi adiacenti e di persone anziane residenti in quel comune.
Negli anni cinquanta il negozio era adibito a macelleria e nel cortile sul retro ed anche nelle cantine si macellavano piccoli animali come conigli, polli e maiali; in seguito rimase per cinque anni chiuso ed infine, prima dell'attuale attività cominciata nel 2000, un commerciante bresciano di fiori secchi lo rilevò per circa sei mesi. L'operazione fu un fiasco completo. La gente della cittadina evitava quel luogo ed erano cominciate a fiorire strane storie, tipiche dei paesi della Bassa: porte che cigolavano, improvvisi spifferi di aria gelida, un po' di tutto insomma, a farne le spese fu purtroppo il fioraio, che il postino trovò una sera a piangere e che poi scappò a Brescia aprendo un'altra attività.
L'esame delle mappe geologiche ha dato esiti negativi, salvo confermare una faglia all'entrata del corridoio, ed una falda acquifera che attraversa da est a ovest in corrispondenza del cortiletto interno, precedentemente scoperte col Biosimil.
Più interessante è stato lo studio condotto sui documenti di un codice diplomatico medioevale che ha portato alla scoperta di abitazioni precedenti i cui resti erano affiorati negli anni settanta in occasione di lavori di ampliamento della rete fognaria.
Tramite uno studio tecnico, specializzato in marchi di fabbrica, si è giunti a far analizzare il marchio con il logo, alfine di dissipare tutti i possibili dubbi sulle valenze dovute alle onde di forma che sono risultate di frequenza positiva.
Per risanare il negozio si è ricorso all'opera di un muratore per l'apertura del pozzo artesiano, che ha permesso lo scambio delle energie telluriche e terrestri; poi con l'opera di un falegname specializzato in arredi sono stati addolciti i vertici degli infissi a forma piramidale, con il blocco totale dell'emissione del verde elettrico negativo dannoso per gli esseri umani.
Si è schermato poi con il logo il vertice d'entrata e all'uscita del soffitto del piccolo corridoio d'entrata di forma piramidale.
Per addolcire la parete in rilievo dei mattoni a vista e le altre pareti, abbiamo utilizzato un piccolo cloudbuster ad una canna, funzionante ad acqua corrente, orientandolo di volta in volta verso le pareti. Dopo cinque giorni di operazioni la stanza aveva preso un sapore più morbido ed il senso di oppressione era quasi scomparso.
Quindi si è utilizzato un " Rekti ", che è un rettificatore di energia ambientale congesta opportunamente orientato con l'ausilio di una bussola, per poter caricare con energia pulita il negozio.
Per migliorare l'estetica si è fatto ricorso ad una pittrice che ha sapientemente decorato le pareti ed il soffitto con motivi floreali.
Per valorizzare meglio i prodotti sia sulle mensole interne che nelle vetrinette all'entrata si è fatto ricorso all'arte giapponese di disporre e presentare gli oggetti in maniera armonica, facendo frequentare ai titolari un corso teorico/pratico.
Per la vendita sono state studiate e messe a punto delle strategie e tecniche di marketing alfine di migliorare e cercare con dei prodotti nuovi e specializzati di attirare i clienti nonostante la concorrenza dei supermercati e della grande distribuzione.

Tutti questi interventi si sono conclusi nel giro di un mese, riconsegnando ai proprietari un esercizio totalmente rinnovato, sia da un punto di vista armonico del luogo ed anche attraverso una campagna promozionale dei nuovi articoli mirata all'acquisizione di nuovi clienti, grazie alla consegna di circa tremila tessere che ad ogni acquisto venivano bucate, fino a raggiungere un dato importo di euro, dopo il quale si aveva un buono da poter spendere nei vari articoli. Condizioni particolari erano riservate ai tesserati che venivano informati tramite e-mail, sms ò con l'ausilio di un invito postale delle promozioni e sconti per l'acquisto di nuovi prodotti.
A distanza di sei mesi il negozio vende ed ha un ottima clientela, nonostante l'attuale aspra concorrenza della grande distribuzione.

SECONDO CASO

A metà novembre del 2003 un medico omeopata che conosco e con il quale collaboro da qualche anno su ricerche geobiologiche, mi informò di una famiglia che aveva gravi disturbi al sistema immunitario dovuti a una disarmonia della casa dove abitavano da quasi 10 anni.
Il nucleo famigliare è composto da marito e moglie, rispettivamente di 43 e 40 anni, e dalla figlia di 19 anni.
Gli accertamenti medici avevano rilevato problemi di stanchezza, nevrosi, insonnia e danni al sistema immunitario su entrambi i coniugi: lo stato più grave era a carico della moglie con una serie di disturbi gravi come gastrite, colite, astenia, cefalea, depressione, cattiva circolazione ed insonnia. La figlia presentava solo alcune allergie.
Al primo contatto telefonico mi feci inviare la piantina completa dell'appartamento, che analizzai subito col Biosimil rilevando subito alcune anomalie, localizzate soprattutto nella stanza dove dormivano i due coniugi:

1) **Disarmonia della camera da letto**
2) **Geopatie in atto**
3) **Polluzione elettrica**
4) **Due nodi di Hartmann**
5) **Due nodi di Curry**
6) **Stress elettrico da presa**

L'appartamento si presenta su 3 piani collegati fra loro da scale, la zona più colpita è risultata subito la camera da letto dei due coniugi. L'esame all'interno dei locali è stato eseguito anche con la collaborazione di un geologo.
Le strumentazioni usate erano composte dal Biosimil, un'antenna Hartmann, vari tipologie di biotensor, un pendolo radiestetico, una radiolina portatile Am/Fm, una bussola, un dorbuster ed uno strumento per la misurazione della vitalità.
Abbiamo rilevato due nodi di Hartmann, posizionati rispettivamente uno sul letto matrimoniale, dalla parte di destra dove dorme la moglie all'altezza dello stomaco, e l'altro sul pavimento, fra l'armadio ed il letto. I due nodi di Curry si trovavano fuori del letto: il primo era posto ai piedi del letto vicino all'armadio e l'altro era sul pavimento dal lato destro vicino al comò.
La bussola presentava uno scarto di cinque gradi rispetto al nord, ma ciò deve considerarsi normale per via delle tubature nelle pareti e nella pavimentazione.
La radiolina portatile accesa e posizionata in Am, su una stazione non udibile generante rumore bianco, è servita per controllare l'andamento effettivo dell'effluvio elettrico generato dalle prese di corrente a cui erano collegate le lampade poste sui comodini il cui raggio d'azione copriva tutto il letto matrimoniale ed era aumentato anche grazie alla rete metallica del letto.
Con il Biosimil si è misurato la polluzione elettrica a carico del sangue su i due coniugi e lo stress elettrico dovuto alle prese di corrente.
Quindi abbiamo proceduto ad un assorbimento di energia DOR sui due coniugi mediante l'uso di un dorbuster riportando il livello di energia dell'organismo ad un valore accettabile di 120 Angstrom, contro i 40 Angstrom precedentemente misurati. Si è proceduto poi alla misurazione dell'energia vitale dei due coniugi quando questi si coricavano sul loro letto matrimoniale, riscontrando che questa scendeva in modo anomalo sui 40 Angstrom. Si è optato per la schermatura del nodo di Hartmann presente sul lato destro, posizionandogli sopra un Rekti in modo da deviare il suo irradiamento. Ripetendo poi il test sull'energia vitale, si è riscontrato che questa era tornata sopra i 120 Angstrom.
Per schermare definitivamente dalla polluzione elettrica il letto matrimoniale si è usato una lastra di lamiera non zincata dello spessore di 3 millimetri della misura del letto, posta sotto il letto collegata con due cavi di 5 millimetri di diametro, uno era fissato alla rete metallica del letto , mentre il secondo era collegato a massa alla presa di corrente.Per aiutare questa famiglia a uscire definitivamente dai problemi di salute accumulatisi nel corso degli anni, l'omeopata decise di trattare tutti i componenti con una quindicina di sedute con l'Olom e l'oscillatore di Lakhovsky costruito dal centro omonimo di Rimini.
Ad oggi i due coniugi hanno ripreso a dormire e stanno bene.

Novità, notizie e commenti in breve. Tale spazio può essere utilizzato per annunci da parte dei lettori- in questo caso, contattate la redazione.

Novità dall'A.S.S.E.

Non che in assenza di questa rubrica non fosse successo nulla, al contrario: non avevamo il tempo di scriverla! Malgarini infatti è impegnato con un progetto che riguarda tutta l'A.S.S.E.: vuole fare un meeting degli associati. Il luogo sarà sicuramente Roma, il periodo in primavera, tuttavia data e posto sono ancora da decidere. Avrà, nell'organizzazione, la partecipazione di Enrico Valbonesi, ma questo è un punto su cui torneremo più tardi.
Franco, dal canto suo, non ha la minima intenzione di perdersi in dibattiti: vuole che gli esperimenti e i dispositivi siano i protagonisti assoluti.
Tale riunione non è aperta al pubblico: al più, chi è iscritto, può portare qualche esterno di fiducia, che tuttavia ci devono segnalare prima. Franco vorrebbe invitare anche qualche giornalista, ma di stampa specializzata come Nexus, Hera, Stargate (la rivista) e simili (Odorifero gli ha calorosamente sconsigliato la stampa generalista).
Se siete interessati ad avere informazioni, aggiornamenti o anche suggerimenti in questione contattate malgariniaz@iol.it
Per quanto riguarda Odorifero, quest'ultimo, ha ricevuto l'incarico da Valbonesi di ristrutturare il sito di www.antigravity.it sia in stile, sia in ordine, sia in leggibilità, e non solo in qualità di webmaster. Per chi conosce tale indirizzo web, sa benissimo che non è un lavoro da poco – probabilmente è il più caotico del web italiano, ma con contenuti più fruibili potrebbe essere di sicuro aiuto e interesse.
Enrico tuttavia è, sul fronte che ci riguarda, molto dinamico, svolge spesso convegni, è a contatto con numerosi ricercatori e sperimentatori in Italia e all'estero ed è disposto ad aiutarci, non solo col sopracitato convegno... Lo stesso tuttavia ci ha segnalato una spiacevole anteprima proveniente dal sito della NASA: secondo le previsioni dell'agenzia, questa estate la temperatura sarà tra i 40 e i 43 gradi. Il nostro consiglio, come gli altri anni è, chi può, di interessarsi al Cloudbusting, iniziando da subito. Agli altri, invece, se anche l'andamento delll'umidità è analoga all'anno scorso, di prenotarsi una vacanza in un posto dal clima molto temperato: se la scorsa estate vi ha recato disagio, la prossima...
