

Case Docket No. 830,587

Serial No.

From: John F. Crane  
4246 Pepper Drive  
San Diego, Calif. 92105

March 26, 1973

THE COMMISSIONER OF PATENTS  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing is the patent application of (Continuation in part)

Inventor: John Francis Crane

For: Means and Processes for Pollution Control

Enclosed are: Seventy One pages of Specifications and

Eighteen sheets of drawing.S.

An assignment of the invention to \_\_\_\_\_

A certified copy of a \_\_\_\_\_ application.

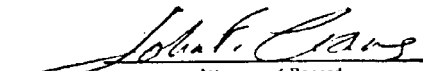
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CLAIMS AS FILED				
(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) BASIC FEE \$65.00
TOTAL CLAIMS	One -10=	None	X \$2.00	\$65.00
INDEPENDENT CLAIMS	-1=		X \$10.00	
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Attorney of Record  
John F. Crane

OATH IN CONTINUING PATENT APPLICATION  
IN THE UNITED STATES PATENT OFFICE

JOHN F. CRANE, your petitioner, being sworn, deposes and says that he is a citizen of the United States and resident of 4246 Pepper Drive, San Diego, California, that he verily believes himself to be the original, first and sole inventor of the improvement in Means and Processes for Pollution Control described and claimed in the foregoing specification; that this application in part discloses and claims subject matter disclosed in his earlier filed pending application, Serial No. 830,587, filed June 4, 1969; that, as to the subject matter of this application which is common to said earlier application he does not know and does not believe that the same was ever known or used before his invention thereof or patented or described in any printed publication in any country before his invention thereof or more than one year prior to said earlier application, or in public use or on sale in the United States more than one year prior to said earlier application; that said common subject matter has not been patented before the date of said earlier application in any country foreign to the United States on an application filed by him or his legal representatives or assigns more than twelve months prior to said application; that, as to the subject matter of this application which is not common to said earlier application, he does not know and does not believe that the same was ever known or used before his invention thereof or patented or described in any printed publication in any country before his invention thereof or more than one year prior to the date of this application, or in public use or on sale in the United States more than one year prior to the date of this application, and that said subject matter has not been patented in any country foreign to the United States on an application filed by him or his legal representatives or assigns more than twelve months prior to the date of this application; and that no

application for patent on said invention has been filed by him or his representatives or assigns in any country foreign to the United States, except in Japan.

Inventor's full name: JOHN FRANCIS CRANE . . . . .

*John Francis Crane*  
(Signature)

STATE OF CALIFORNIA )  
                          ) ss:  
COUNTY OF SAN DIEGO )

Sworn to and subscribed before me this 27th day of March, 1973

*Patricia A. Keating*  
Notary Public



This continuation in part is a complete revision of all drawings and specifications as originally filed and as continued as submitted by letter and transmittal of September 5, 1971 with fees duly paid therefor and for which no new serial number was assigned by the U.S. Patent Office.

## SPECIFICATION

TO WHOM IT ALL MAY CONCERN:

Be it known that I, John F. Crane, am a citizen of the United States of America, residing in the City of San Diego, State of California, have invented a new and useful

### MEANS AND PROCESSES FOR POLLUTION CONTROL

of which the following is a specification:

This application is a continuation-in-part of the combined subject matter of copending patent application Serial No. 830,587, filed June 4, 1969, for an improvement in: Means and Process Separation, Transformation, Control, and Extraction of Minerals, and Chemicals and Media from Liquids, Solids, and Gases, and the Devitalization and/or Control of Bacteria, Worms, Virus, and Fungi; and Power Generation with Steam and Gas Turbine Prime Movers and Conventional Methods in Various Applications with Solar Energy, and now abandoned; this application also replaces another complete revision transmitted on September 5, 1971 for which no new serial number was assigned.

### ABSTRACT OF THE DISCLOSURE

Pollution is controlled by means and process separation, transformation, deionizing and extraction of elements from liquids gases and solids. Pollution of air, water, and soil by sewage, refuse, and other contaminants is eliminated; elements are recovered as marketable items. The cause of disease is controlled by combinations of applied electromagnetic, cosmic, and magnetic energy that devitalizes viruses, bacteria, worms, fungi, and food poisoning in humans, animals, foods, liquids, gases, and other

mediums. In addition to being indirectly controlled, air pollution is directly controlled by the production and use of heat from liquid hydrogen and solar energy heaters, which do not pollute.

Concentrated solar heat energy is applied to heat sinks that can distill water into steam and brine. Steam is used to drive turbine driven generators that make electricity. Brine is used to preheat and distill water when the sun is insufficient and also is a source of minerals that are recovered. Steam from turbines may be superheated and recycled or converted into fresh water.

Virus Eliminators control microorganisms in liquids, stop corrosion from microorganisms in liquids, distill water in pipes, and prevent piped liquids from freezing. Sewage and refuse, trash, and garbage are steamed, sorted out, and separated. Elements are recovered and made to yield compost and nutrient water for commercial farming. Other process bi-products are fresh water, brine, and dried solids which also become products for sale from process separation.

#### CROSS REFERENCES TO RELATED APPLICATIONS

No complete systems for control of water table level, soil, air and water pollution, and other liquid or gaseous or solid type pollution have been found in the patent search. It is obvious that without a complete system, there could be no patent protection for a pollution control process.

Reference is made to a patent of Pierre Nicolardot entitled "Method of and Device for the Treatment of Solid, Liquid and Gaseous Substances," Serial No. 226 787, dated February 5, 1960. Mr. Nicolardot's patent claims a Type I and Type II oscillator, but no circuit is given for either type nor is either type identified in the drawings. He states that a vibrator or vibratory energy is used; but no vibrator is shown in the drawings.

and he further states (in paragraph 2 of column 27) that oscillators will work on direct current. It is submitted that no oscillation is possible with direct current. He states that a one or two color lamp of Fig. 4 and Fig. 7, identified as Detail No. 9, produces an electric field when the light is passed through a condenser lens system as shown in Fig. 7, Detail 11, which is viewed as a physical impossibility; nor can it be resolved that electromagnetic or electrostatic field is the result of heat condensation from the condenser lenses.

No claim is made for the amount of current required to accomplish this task by an infrared or ultraviolet lamp such as is suggested. Even a most sensitive vacuum tube voltmeter's probes placed in an area designated in Fig. 7 or Fig. 9 would measure zero voltage. The term "modulation," which is represented by vibratory resonance, does not modulate frequencies from a master oscillator as modulation is defined in electronic terms in "International Dictionary of Physics and Electronics" (published by D. Van Nostrand Co.) for which Claim 1 is cited. Any effect would be a surface effect only and owing to insulation effects could not penetrate deep through a body such as a human body or through a large tank of liquid brine.

#### BACKGROUND OF THE INVENTION

##### (1) FIELD OF THE INVENTION:

The invention relates to various combinations:

1. To pollution controls embraced in means and process separation, transformation, control, and extraction of minerals, chemicals, and media from liquids, solids, and gases, and the devitalization and/or control of bacteria, worms, viruses, and fungi;
2. To power generation with steam and gas turbine prime movers and methods in various applications with solar

- energy;
3. To solar energy which utilizes optics for solar heat, steam and gas turbines for converting steam into fresh water, brine that is used as an auxiliary heat source;
  4. To treatment of harmful microorganisms that is used to eliminate diseases and corrosive environmental destruction in pipes and metals and freezing of pipes and pH control in pipes and systems;
  5. To process separation of elements to be reclaimed by electronic, cosmic, and magnetic means;
  6. To sewage and refuse recovery to market reclaimed products and elements and compounds;
  7. To water conversion systems to remove the pollution of water and eliminate contamination and to reclaim it as a marketable item;
  8. To conversion of water and brine into hydrogen, oxygen, and chlorine gas for recovery and marketing wherein hydrogen is made from the solar energy process and liquified into non-polluting fuel for storage and reuse;
  9. To extraction of gases, minerals, elements, and compounds from polluted or non-polluted sources;
  10. To balance rotary parts and provide power to do work;
  11. To recover smoke and to replace smokestacks where elements are recovered from liquids;
  12. To separate liquids into selective continuous flow gravity type units;
  13. To provide electromagnetic pyramids for retarding old age.

The Public Health Service calls pollution "a national disgrace." Even now, stench-ridden water resources are sprawling out of control. This invention is necessary for water conversion, purification, product recovery, and marketing on effective and

practical levels, which is absolutely necessary for our health and survival.

## (2) DESCRIPTION OF PRIOR ART

Power from the sun is being wasted at a rate that is conservatively estimated to be 250 billion horsepower per second. The pollution crisis needs its use to reverse all cycles of pollution and disease. One of the most significant facts bearing upon use of solar heat is its storage in the form of liquid hydrogen as a non-polluting fuel energy. In the past it has been proposed to use energy stored in batteries. It was determined that solar heat was available 40 per cent of each 24 hour period when the sun shines. The utilization of solar heat to make large volumes of steam has failed for many years because heat has most generally been concentrated in one small area. This is illustrated by use of a small hand magnifying glass that focuses the solar energy from the sun into one small spot. If the spot is on a piece of paper, and if the glass is powerful enough, the paper will burn.

Steam, power of steam expansion, and its ability to do work were known to the ancients. The steam prime mover came into being in 1883 with de Laval's steam turbine. He provided axial flow for steam through turbine blades. Steam and gas turbines built since that date have, for the most part, continued to be of axial flow designs which result in great losses of overall efficiency due to internal gas flow friction. Power produced by turbines has long been used to drive electric generators. Electric generators use principles of electric induction as periodic variation of the flux of magnetic lines of force, which makes electricity. The generator has an internal rotating magnetic field which revolves between fixed poles of the stator. To eliminate vibration of moving parts, the usual way is to balance the rotating member statically and dynamically by adding or removing small amounts of material opposite the unbalanced side.



Brine from heated, polluted, brackish, or saline water is a heavily saturated salt in water which boils at 226°F at atmospheric pressure. Sodium chloride melts at 1474°F and boils at 2575°F. Infrared heating panels with ceramic reflectors are self-cleaning and provide heat up to 2500°F.

To recover gases from solutions, electrolysis is used to decompose a chemical compound by passing a current of electricity through a solution of the compound.

Sewer systems have used the following disposal methods: by dilution with flowing water and discharging the mass into streams and oceans; by broad irrigation or sewage farming, where liquid sewage is run over a large area of land and left to oxidize in the air; by chemical filtration, sedimentation and treatment, so as to kill organic life with chemicals and make solid matter or sludge available as extremely low grade fertilizing material. The peril of the pollution is in the air, water, and soil. Rivers have become open sewers. It is predicted that if pollution continues at the present rate, that by 1990 all 22 river systems in this country will be biologically dead. Raw sewage, harmful chemicals and refuse are being dumped into our rivers and oceans. Chemicals, animal dung, acids, poisons generated by industry, silts and salts drained by strip mines, products of gasoline combustion, crankcase oils, detergents, disease-carrying microorganisms, herbicides, pesticides, radioactive contaminants, hot water from mines and atomic plants, garbage and filth, if allowed to continue, may soon cause man's extinction. Recovery of refuse and sewage has employed a variety of processes, including: filters, classifiers, shredders, centrifugal separators, air pressure separators, bailers, air classifiers, magnetic separators and water classifiers, vibrators, shakers, vibrating screens, conveyors, dump trucks, and barges for water dumping.

Some smoke stacks have been increased in height to carry pollutants to higher air levels up to 600 feet; others are being planned over 1000 feet high. In the roundhouse at Chicago, where several locomotives gave off much smoke, an arrangement was used by which a large fan sucked the smoke through a wall of water. While it washed out the soot and carbonaceous matter, it was not practical because of operating cost. To recover elements from liquids, electrochemical industries have used electrolytics, including: Electroseparation, electrowinning, electrorefining, and electrodeposition.

About 60 per cent of our land is arid and incapable of supporting agriculture. Water must be returned to maintain pumped-out reserves, to keep precious underground reservoirs replenished, and to establish new water tables in arid lands.

The present lack of controls for nutrient concentrations and proper acid or alkaline concentrations in soil can, in many instances, cause food to poison life systems, especially when cancer-causing pesticides are applied to food and soil and when food is grown on pH nutrient unbalanced inorganic soils. The hospitals are full of drug victims, pesticide cases, and virus patients who find it impossible to obtain balanced nutritious food grown from balanced soil, and thus to recover.

Radiation has been the lethal form of energy employed by our medical profession to devitalize bacteria, worms, viruses, and fungi; but it has been proven that radiation is a major cause of cancer, can make cancer virus virulent, and causes massive internal radiation burns in human and animal tissue, with subsequent resort to pain-killing and addictive drugs to prevent loss of sanity. X-rays and radiation have been demonstrated in case after case to cause permanent injuries.

Many doctors have already barred the use of x-rays and radiation, and they personally suffer from lifelong radiation burns that have caused permanent growths and handicaps. Antibiotics and other drugs have been tried for the control of pathogenic diseases, but are only superficially effective and sometimes even fatal, and cause more drug-resistant strains of disease bacteria, and microworms to develop every year. Some side effects have become permanent injuries and have led to birth defects such as in the thalidomide disasters.

In 1931, Royal R. Rife discovered a virus which caused cancer tumors to grow in over 400 consecutive albino rat injection tests. Rife isolated the virus each time from the tumor of the preceding rat. With Frequency Instruments he devitalized the cancer viruses as well as other pathogenic viruses, worms, bacteria, and fungi. The devitalization of cancer viruses and the other causes of diseases enabled the body to cure itself. These facts were founded on thousands of clinical and laboratory tests in and out of the Rife Research Laboratory in Arizona and in California.

The history of Electron Therapy is primarily concerned with the detection and cure of cancer and related diseases. It is a matter of record that, while orthodox methods have had little success with cancer discovered in the early stage, they have had no success with the treatment of more advanced cases. This history concerns itself with Royal R. Rife's discovery of a virus causing cancer and a method of treatment which excited considerable interest among reputable doctors and scientists in 1934 clinical tests. Rife first conceived the idea of devitalizing frequencies in conjunction with his Universal Microscope and four other virus microscopes. Rife was granted a microscope lamp patent No. 1727618 on September 10, 1929. In contrast to Rife's

virus microscopes, the commercial microscopes are inadequate for the observation of any of the filterable viruses of disease. The projection principle used in Rife's prismatic system of optics surpassed all other microscopes in life virus studies. It is believed to provide the highest optical magnification and best resolution and served to reveal and identify disease-causing viruses by their own chemical colors, thus giving a positive means for diagnosis.

The facts regarding the first of five virus microscopes was published by a medical journal, "California and Western Medicine," in a joint article by Dr. Arthur Isaac Kendall, Ph.D and Royal R. Rife entitled " Observations on Bacillus Typhosus in its Filterable State," in Vol. 35, No. 6, pp 409-411 of December 1931. From 1920 to 1930 Rife failed to find viruses in over 30,000 slides, and recognized the futility of using acid or analine dye stains. He found that viruses were much smaller than the colloidal particles of stains and thus could not be stained or seen with ordinary methods of microscopy. The viruses had to be filtered with porcelain Berkefeld filters which were the same consistency as unglazed Dresden china, giving 10 micron filtration. The diagnosis of cancer was made by Rife in ten minutes from a blood smear, using his virus microscope.

Rife's first attempts to destroy viruses in the 1915 to 1920 period consisted of unsuccessful tests with infra-red and ultra violet lamps as surface penetration was impaired. Rife next tried audio and radio frequencies. His first radio frequency transmitter with audio modulation was built with the aid of Dr. Lee de Forest in 1920. The instrument covered a wide range of waves from about 15 to 27,000 meters and used ray tubes furnished in part by Mr. Coolidge of General Electric. Rife carried on research on polio, tuberculosis, and 40 other diseases.

Since frequencies necessary to devitalize diseases and viruses were unknown, Rife proceeded with pure cultures and injected animals on a trial and error basis, checking results with his chemical and virus microscopes. Rife's successes on animals were outstanding; and he proceeded with clinical tests on hopeless human cases in 1934, which was sponsored by a Special Medical Research Committee of the University of Southern California whose chairman was Dr. Milbank Johnson, M.D. The first successful cured cancer cases were completed under Rife's treatments. The Committee members included: Dr. George Dock, M.D., Professor of the Theory and Practice of Medicine, Tulane University of Louisiana at New Orleans; Dr. Charles Fisher, M.D., at Children's Hospital in New York; Dr. Wayland Morrison, M.D., Chief Surgeon of the Santa Fe Railway in Pasadena, California; Dr. Karl Meyer, M.D., Medical Director of the George Williams Hooper Foundation of the University of California at San Francisco, California; Dr. Arthur Issac Kendall, Ph.D., Professor of Bacteriology at Northwestern University Medical School at Chicago, Illinois. The clinical research was conducted at the Scripps ranch home known then as the "Scripps' Castle" in San Diego and now as the "Scripps Miramar Ranch" in San Diego, California, which was rented for Rife's cancer research by Dr. Johnson during the summer of 1934. Of the 16 hopeless terminal cancer cases, 14 recovered in 70 days. Dr. Kendall wrote that Dr. Alvin G. Foord, M.D. (former President of the American Society for Pathologists) had diagnosed Tom Knight, one of the patients. Kendall wrote: "Tom was an excellent case because the moulages before and after were so striking; there were the actual models of the lesion in the first days and after some 75 days; also the biopsy report as I understand it was beautiful in that Dr. Foord, so I understood, diagnosed the lesion in the first days and after some 75 days as a malignant epithelioma." In a letter to Mrs. Bridges, who was a

wealthy contributor to Rife's research, Dr. Kendall wrote: "I have written to Dr. Johnson telling him of the one case I can talk about intelligently: Tom Knight. Roy (Rife) will tell you about Tom: he seems to me to be the most important case of the entire series because his tumor was on the cheek, where it could be seen, watched and measured from the start to the finish. This I have done reciting the actual measurements and details of treatment and pathological examination."

The treatments consisted of three minutes' duration and were tuned to the Mortal Oscillatory Rate for cancer, using a transmitted radio carrier wave modulated by audio into the grid at a critical frequency. Frequencies came from the ray tube, which used a critical pressure of helium gas, before any results occurred and induced audio and cosmic energy into the patient. Half of the patients received daily treatments and the other half received treatments once every three days. The 3-day interval of treatment allowed the patients to recover faster because their lymphatic systems were not overloaded.

Other human clinics were operated in Pasadena in 1935 and 1936 by Dr. Milbank Johnson. Rife and Dr. Johnson worked with Dr. Karl Meyer who arranged tests with Meyer's assistant, Dr. E.L. Walker, M.D., which verified Rife's research on soil, rat, and human viruses of leprosy strains. Rife isolated the leprosy virus and devitalized it with his Frequency Instruments. Rife also worked in research with E. C. Rosenow, M.D., Head of Bacterial Research at Mayo Clinic in Rochester, Minnesota. Rosenow, Kendall, and Rife worked together in the East and in the West; and their work was published in part in "Proceedings of the Staff Meetings of the Mayo Clinic, Vol. 7, No. 28, July 13, 1932, entitled, "Observations on Filter-Passing Forms of Eberthella Typhi and of the Streptococcus of Poliomyelitis" by E.C. Rosenow, M.D.

Rife's problem with electronics was that he enlisted the help of experts who never wrote down the details of his instruments, and later on he was unable to duplicate the marvels of his Frequency Instrument research. After working with Rife's principles for eight years, John Crane finally resolved the missing link to the riddle by placing a tuning capacitor in the resonant circuit of high voltage transmission. Crane's research in 1950 to 1960 developed an audio oscillator that provided safe energy direct to the human body and attained outstanding results on hundreds of patients in clinical tests by doctors and by individuals who made sworn statements and affidavits as to the efficacy of Crane's Frequency Instruments. Royal R. Rife aided and worked with John F. Crane from 1950 to 1970 on a consulting basis.

Dr. Robert A. Millikan devised the first cosmic-ray meter, consisting of an ionization chamber and a quartz filter electro-scope used to record the intensity of cosmic radiation. Experimental observations show that the cosmic rays entering our atmosphere are almost entirely composed of positively-charged atomic nuclei. About two-thirds are protons while the balance consists of electrons, positrons, photons, and some slow mesons. Mesons of various kinds are present in cosmic rays, being formed most generally by collisions which cause miniature inaudible explosions of cosmic energy vital to life forces. Crane found in his research that cosmic energy concentrators from ray tubes, pulsed electro-magnetism, and electro-magnetic energy of forces restarted the dormant functions of oxidation and reduction in human cells that are accompanied by the giving-off of electrons to collectively bring the return of good health to the human body.

Eradication of disease as a major cause of sickness and death from pollution of food and drugs is the exciting promise of these revolutionary discoveries published by the Smithsonian

Institution in Washington, D.C. and the Franklin Institute in Philadelphia, the two leading scientific institutions in the United States, in 1944-45, by R. E. Seidel, Physician and Surgeon of Philadelphia, Pennsylvania, entitled, "The New Microscopes." Following is a quotation from the 1944 Annual Report of the Smithsonian Institution, pages 193-220 at 216: "Under (Rife's) Universal Microscope disease organisms such as those of tuberculosis, cancer, sarcoma, streptococcus, typhoid, staphylococcus, leprosy, hoof and mouth disease and others may be observed to succumb when exposed to certain lethal frequencies, coordinated with the particular frequencies peculiar to each individual organism, and directed upon them by rays covering a wide range of waves. By means of a camera attachment and a motion picture camera built into the instrument, many still microphotographs as well as hundreds of feet of motion-picture film bear witness to the complete life cycles of numerous organisms. It should be emphasized, perhaps, that invariably the same organisms refract the same colors when stained by means of a monochromatic beam illumination (from variable spectrum color frequency changes) in the Universal Microscope, regardless of the media upon which they are grown. The virus of Bacillus Typhosus is always turquoise blue, the Bacillus Coli always mahogany colored, the Mycobacterium Leprae always a ruby shade, the filter-passing form or Virus of Tuberculosis always an emerald green, the virus of Cancer always a purplish red, and so on. Thus with the aid of this microscope, it is possible to reveal the typhoid organism, for instance, in the blood of a suspected typhoid patient 4 and 5 days before a Widal is positive. When it is desired to observe the flagella of the typhoid organism, mercury salts are used as the medium to see it at a magnification of 10,000 X. In the light of the amazing results obtainable with this Universal Microscope and its smaller brother scopes, there can be no doubt of the ability of



these instruments to actually reveal any and all microorganisms according to their individual structure and chemical constituents.

"With the aid of its new eyes - the new microscopes, all of which are constantly being improved - science has at last penetrated beyond the boundary of accepted theory and into the world of viruses with the result that we can look forward to discovering new methods and treatments of combating the deadly organisms - for science does not rest...." This same article on science by R. E. Seidel, M.D. and M. Elizabeth Winter was also published in the "Journal of the Franklin Institute." Vol. 237, February 1944, No. 2, Pages 103-130, claiming that science is exploring and looking for the first time upon totally new worlds through the eyes of totally new microscopes, microscopes new in principle of construction and in principle of illumination. This article continues (p. 119 of Franklin Institute's Journal): "Working together back in 1931 and using one of the smaller Rife microscopes with a magnification and resolution of 17,000X, Dr. Rife and Dr. Arthur Isaac Kendall of the Department of Bacteriology of Northwestern University Medical School were able to observe and demonstrate the presence of the filter-passing forms of Bacillus Typhosus. An agar slant culture of the Rawlings strain of Bacillus Typhosus was first prepared by Dr. Arthur I. Kendall and inoculated into six cubic centimeters of 'Kendall' K Medium, a medium rich in protein but poor in peptone and consisting of 100 mg. of dried hog intestine powder and then sterilized in the autoclave and 6 cc of tyrode solution (containing neither glucose nor glycerine) which mixture is shaken well so as to moisten the dried intestine powder and then sterilized in the autoclave, 15 pounds for 15 minutes, alterations of the medium being frequently necessary depending upon the requirements for different organisms. Now, after a period of 18 hours in this k

Medium, the culture was passed through a Berkefeld "N" filter, a drop of the filtrate being added to another 6 cc of K Medium and incubated at 37°C. 48 hours later this same process was repeated, the "N" filter again being used, after which it was noted that the culture no longer responded to peptone medium, growing now only in the protein medium. When again, within 24 hours, the culture was passed through a filter - the finest Berkefeld "W" filter - a drop of the filtrate was once more added to 6 cc of K Medium and incubated at 37°C; a period of 3 days elapsed before the culture was transferred to K Medium and yet another 3 days before a new culture was prepared. Then viewed with an ordinary microscope, these cultures were observed to be turbid and to reveal no bacilli whatsoever. When viewed by means of dark-field illumination and oil immersion lenses, however, the presence of small, actively-motile granules was established, although nothing at all of their individual structure could be ascertained. Another period of four days was allowed to elapse before these cultures were transferred to K Medium and incubated at 37°C for 24 hours when they were then examined under the Rife Microscope where, as was mentioned earlier, the filterable typhoid bacilli, emitting a blue spectrum, caused the plane of polarization to be deviated plus 4.8 degrees. Then when the opposite angle of refraction was obtained by means of adjusting the polarizing prisms to minus 4.8 degrees and the cultures illuminated by a monochromatic beam coordinated in frequency with the chemical constituents of the typhoid bacillus, small, oval, actively motile, bright turquoise-blue bodies were observed at a magnification of 5,000X, in contrast to the colorless and motionless debris of the medium. These observations were repeated 8 times, the complete absence of these bodies in unincubated control K Media also being noted. By transplanting the cultures of the filter-passing organisms or virus into a broth, they were seen to change over again into their

original rod-like forms.

"At the same time these findings of Doctors Rife and Kendall were confirmed by Dr. Edward C. Rosenow of the Mayo Foundation, the magnification with accompanying resolution of 8,000X of the Rife Microscope, operated by Dr. Rife, was checked against a dark field oil immersion lens and microscope operated by Dr. Kendall and an ordinary 2 mm oil immersion objective lens and 10X ocular Zeiss microscope operated by Dr. Rosenow at a magnification of 900X...

"Dr. Rosenow expressed his opinion that the inability to see these and other similarly revealed organisms is due, not necessarily to the minuteness of the organisms but rather to the fact that they are of a non-staining hyaline structure. Results with the Rife Microscopes, he thinks, are due to the "ingenious methods employed rather than to the excessively high magnification." He has declared also, in the report previously mentioned, that "Examination under the Rife Microscope of specimens containing objects visible with the ordinary microscope, leaves no doubt of the accurate visualization of objects or particular matter by direct observation at the extremely high magnification obtained with this instrument."

Exceedingly high powers of magnification with accompanying high powers of resolution may be realized with all the Rife Microscopes, one of which, having resolution and magnification up to 18,000X was used in 1940 by O. Cameron Grunner, M. D. at the British School of Tropical Medicine in Kent, England. In another demonstration of the smaller Rife scopes (May 16th, 1942) before a group of doctors (including Dr. J. H. Renner of Santa Barbara, California; Dr. Roger A. Schmidt of San Francisco, California; Dr. Lois Bronson Slade of Alameda, California; Dr. Lucile B. Larkin

of Bellingham, Washington; and Dr. W.J.Gier of San Diego, Calif., a Zeiss ruled grating was examined (.01 mm spacing), first by an ordinary microscope and then under the Rife microscope. Whereas with the commercial ordinary microscope, 50 lines on the ruled grating were revealed with considerable chromatic and spherical aberration, while only 5 lines were seen with the Rife microscope. The five lines of the ruled grating were so highly magnified that they occupied the entire field without any aberration whatsoever being present. A 1.8 N.A. Apochromatic objective dry lens and an eyepiece, flatfield having 10X magnification was used in both tests of the two different microscopes. The Rife Universal Microscope possessed a resolution of 31,000X and a peak magnification of 60,000X.

More than 20,000 slides of carcinoma were studied from 1920 to 1927 by Rife and his associates during which time Rife failed to isolate or see the cancer virus. Rife and Dr. Kendall had perfected the method of growing carcinoma and sarcoma virus during this research. Rife tried all kinds of acid and other stains with continued failure. He finally reasoned that the cancer virus had to be stained with the color frequencies of the light spectrum because the virus were smaller than the particles of the colloidal stains. Rife then turned from sectioned tumor tissues to filter-passing forms at 10 microns and he isolated cancer and many other viruses stained in their own chemical colors.

In 1932 Rife discovered the reactions in growth of virus cultures to ionizing neon and other rare gas radiation by light—indicating a new approach. Blocks of tissue 1/2 cubic centimeter square were taken from an un ulcerated human breast carcinoma and placed in triple-sterilized K medium. K medium was made for cancer cultures of virus out of desiccated pig intestine and salt solution. The culture was incubated at 37°C without results and

then placed in a circular spiral loop of glass tubing filled with argon gas at 14 mm pressure and activated at 5,000 volts for 24 hours. The test cultures were next placed in a two-inch water vacuum of glass enclosure and incubated at 37°C for 24 hours which made the virus extremely virulent so that tumors would grow in experimental animals in days instead of months.

Using a specially designed 1.12 N.A. dry objective lens, equal in amplitude of magnification to a 2 mm apochromatic oil immersion lens, the live cultures were examined under Rife's Universal Microscope at 10,000X where animated, purplish-red, filterable forms were discovered by Rife measuring less than 1/20 of a micron in dimension. The purplish-red virus were ionized and transferred through 14 transplants from K medium to K medium. The cancer virus remained constant and readily identifiable under Rife's virus microscopes. The cancer virus that Rife had isolated was next inoculated consecutively into 426 albino rats, recovering the virus from the tumor grown each time in the cancer tumor in Rife's surgical operations during which the tumors were removed and the rats were cured by means of Frequency Instrument treatments after being sewn up by Rife. Tumors with the true pathology of neoplastic tissue were grown in the 426 experimental tests with controls always used.

Experiments conducted at the Rife Research Laboratory have established the fact that round paired bacteria containing cancer virus are found in blood monocytes in over 92% of all neoplastic diseases linked with cancer tumor cases. Rife also demonstrated that cancer virus, like the viruses of other diseases, can be changed from one form of disease microorganism to another form by altering the medium upon which it is grown by two or more parts per million.

In the first alteration cancer virus becomes considerably enlarged although its purplish-red color remains unchanged. Viruses which would ordinarily require an eight week incubation period to reach their filterable state, have been ionized by radiation and have been shown to produce cancer growths within three days, proving Rife's contention that the incubation period of a virus is really only a cycle of reversion. Rife stated, "In reality, it is not the constituents or the bacteria that produce disease, it is the prenatal cells or viruses of these micro-organisms enacting upon the unbalanced cell metabolism of the host body that actually produces the diseases. If the human body is balanced in pH and nutrients, it is not susceptible to disease".

Briefly the prior art discussed here is part of the work of Royal R. Rife and is summarized as follows: (1) The discovery and proof that cancer has a known cause - a purple-red virus that Rife studied alive as long ago as 1931; (2) that special virus-coloring microscopes first developed by Rife are the only microscopes yet made available to see and identify cancer virus and other viruses of diseases; (3) that cancer virus isolated by Rife has been seen and can be demonstrated to produce tumors and cancers in test animals and (4) there exists electronic means and methods of destroying the viruses without harm to human cells and hence the cancer, after which the person cures himself by elimination of the cancer virus debris by means of the lymphatic systems and waste outlets.

In 1934 a Special Medical Research Committee of the University of Southern California was set up headed by Milbank Johnson, M.D. and observed by James B. Couche, M.D. who reported on one cancer case of a man who was skin and bones with a cancer tumor in his stomach as hard as a rock. Couche said, "Nothing could

be done for him." But Rife treated him and he recovered.

The following is a case history of Mrs. Blanche H. Jones, who stated in an affidavit duly notarized quote: "I, Blanche H. Jones, as Counsel in Pro Per, do hereby certify that in April 1956 I was diagnosed as having cancer and was operated on by five M.D.'s at the San Diego County Hospital and one breast was removed and it was reported that the cancer was still in my body and pus drainage was severe. In May 1956 I was given treatments by the Rife Frequency Instrument by James B. Couche, M.D. which stopped the flow of pus and cured my sarcoma as diagnosed by Dr. Worthylake, M.D. and others by biopsy. The Frequency Instrument was such a wonderful Godsend. It saved my life! It has been twelve years now since it cured my cancer and I give this statement under penalty of perjury as being true and correct, and Mr. John F. Crane witnessed the treatments given by James B. Couche, M.D. with Mr. Crane's Frequency Instrument." [ss/Dated: January 16, 1968 by Mrs. Blanche H. Jones, 1840 4th Ave., Apt. 28, San Diego, Calif. 92101; notarized by Ms. Lucille Grotz, County of San Diego, California]. This performance advantage demonstrated that virus diseases and bacterial infections are devitalized by Crane's Frequency Instruments and are still plague to millions of people as the ancient scourge of mankind.

After more than 22 years of clinical results by James B. Couche, M.D. and Arthur W. Yale, M.D., both top U.S. Army doctors of World War II, all diseases they encountered were cured by the use of Frequency Instruments after all other medical orthodox means and drugs failed to help and made their conditions worse. Results with Frequency Instruments applied to tuberculosis demonstrated that it could be eliminated at once.

In 1933 Rife discovered that Frequency Instrument energy

applied to pure test cultures of tubercle bacillus and to the tuberculosis virus disintegrated them both for a 100% kill. As the virus form was seen, identified, and devitalized by Rife; he said, "We were very fortunate in finding quickly a fatal frequency for tubercle virus, watching them literally explode when I turned on and dialed in the correct wave length for their Mortal Oscillatory Rate. Time after time the same results occurred and all efforts to grow these treated virus and bacteria in cultures were futile. Untreated test cultures readily produced tuberculosis growths."

Rife's treatments by ray tubes consisted of a transmitted application of audio-electro-cosmic energy which led to John F. Crane's invention of Frequency Instruments applying indirect as well as direct energies to animal and human results of similar improvement advantages. Crane's use of direct type Frequency Instruments applied hundreds of times more internal and external energy to the patient which was discovered to be safe to patient cells but lethal to cells of harmful micro-organisms by use of 3 to 10 volts of audio-electric frequencies. The human body was used to complete the circuit by its own measured resistance which varies in persons from 20,000 to 300,000 ohms.

Human blood makes a complete flow circulation in the human body every 3 to 5 minutes and since it contains about 5 per cent salt electrolyte, it makes an excellent electrical conductor. With the use of preventative treatments Crane observed the killing of harmful micro-organisms over an ordinary microscope. Performance results have clearly demonstrated that Frequency Instruments can increase health standards by controlling human and food pollution, by mending bones, by easing pain, by stimulating breathing of paralyzed patients, by providing anesthesia for long operations, by providing electrosleep and relief of insanity, by relieving



disorders ranging from colds to ulcers, and from anxiety to depression, effects of radiation and aging can be reduced.

Realizing that viruses readily pass through all types of filters and become the greatest threat to health has caused John Crane to invent the Virus Eliminator. The performance advantages of this device occur when it is placed in home pipes and water mains setting up an internal electric force field which electrocutes and disintegrates all harmful viruses and micro-organisms passing through. The pipes are grounded on the outside. This Virus Eliminator can overcome the threat of bacteria warfare invasion in water supplies and reservoirs. This invention was necessary to control temperatures also and pollution of liquids in pipes as well as corrosion. The Virus Eliminator can replace chlorination, fluoridation, copper sulfate, and other undesirable additives for water treatment. Varying degrees of heat in liquids inside pipes are attained by applying varying voltages which prevents freezing and can provide boiling if required. Streams, rivers, and other waterways can be decontaminated by use of multiple Virus Eliminators.

#### SUMMARY OF CRANE POLLUTION CONTROL INVENTION

Performance advantages consist and comprise:

- (1) Solar energy concentrators, axial heat sinks and reflectors;
- (2) Steam and gas turbines for electric power and related uses;
- (3) Brine heaters with infrared and solar concentrated heating;
- (4) Means to make liquid hydrogen, oxygen, and other gases from applied forces of electromagnetic processes;
- (5) Recovery of sewage with pH control and conversion to make products for reuse in industries;
- (6) Recovery of refuse and conversion to products for reuse in industries;

- (7) Recovery of gases, minerals and solids from brines and sewage and refuse to make pure water, processed chemicals, saleable products, electric power from steam, and deionized chemicals;
- (8) Frequency Instruments to control diseases and to aid in ionizing and deionizing chemicals, liquids, and gases;
- (9) Virus Eliminators to preheat or distill liquids, prevent freezing in pipes, to control growths and to devitalize harmful micro-organisms, worms and other undesirable entities in liquids, to retard corrosion, and to decontaminate and purify water.

Shortage of water and mass pollution have created a need for methods and means such as this invention covers to provide unlimited amounts of fresh water extracted from sea water, brackish water and polluted water. Solar energy can be concentrated to produce high or low temperatures applied to heat sink transducers. At 200°F economical water conversion can also proceed to provide water conversion with the aid of compressed air to fast remove water vapors.

The continuous flow water system has been devised to convert heated water into steam and brine. Steam is used to drive turbine driven generators to make electric power. Electric power is used to make hydrogen gas that is liquified to make non-polluting fuel while oxygen gas made can replace the oxygen needed in the atmosphere and for other useful functions. Liquid hydrogen is stored solar energy and can be used to provide heat as well as stored liquid hot brine to continue the distillation process when the sun is ineffective. Reflected solar energy provides the performance advantages substantially as illustrated in the drawings of this patent.

Solar heat from tuned in reflectors can be applied to many

commercial methods having performance advantages such as mining on heated conveyors to recover mercury in enclosed areas, heat for air conditioning systems, heat for processing in canneries, heat for hot water heaters, heat for swimming pools, etc. Concentrated solar heat baths and cosmic energy baths can become as popular as steam baths, both of which can be provided direct to the human body at any desired temperature. Reference Figure 30 and 35; 37.

The pumping of water across the nation by a free solar heat source can operate 24 hours per day by using turbines driven by steam from a closed circuit system using solar heat, hot brine, and liquid hydrogen from insulated reservoirs and a condenser system.

Control of city pollution is outlined in Figure 41, which illustrates a combined programmed sequence of my invention to use means and methods to recover waste products. Pollution of rivers by paper pulp mills can be eliminated with continuous flow centrifugal separators as illustrated in Fig. 37. Large volumes of water can be separated into one or more components.

Air pollution can be eliminated in part by the use of liquid hydrogen as a non-polluting fuel. Smokestacks can be eliminated with the recovery of burned components in a smoke or exhaust recovery system as illustrated in Fig. 34 and provided with injections for the balancing of acid or alkaline conditions by means of suitable pH controlled sprays or liquids in which the exhaust is water sprayed, blown into water, blended with fast whirling blades, and the remaining gases are removed and compressed for further separation and recovery of the chemicals. Air pollution can be further controlled by means of transmitting Frequency Instruments that broadcast resonant frequencies to control airborne micro-organisms and smog with sustained or pulsed

frequencies using square wave forms.

Means and processes for separation, transformation, control, and extraction of minerals and chemicals from liquids, solids and gases using electrical energy and solar energy are combined with turbine-powered generators, driven generators, transmitters, oscillators, and electromagnetic forces to be used singularly or in multiple sequences for deionizing soluble chemicals, release of gases and the unlocking of chemical bonds for selected recovery purposes at resonant or harmonic frequencies or at activating frequencies.

Reflected cosmic energy concentrators allow food to be held in storage a little longer without refrigeration. A cosmic energy heat bath, shown in Figure 37, can be used day or night to aid life processes and growth processes which have become dormant by the lack of sufficient radiation from this harmless form of energy. Cosmic energy attractors are shown in Fig. 30 at 173 and are used over liquids or objects to purify them in part in the form of glass or plastic. I prefer to use 1/4 inch thick sheets of blue color or fluorescent materials enclosed in stainless steel sheets.

Among the objects of my invention is to provide means for producing electromagnetic energy and of directing that energy in a concentrated beam to the location of viruses, bacteria, worms, etc. in order to change the chemical composition of them and to destroy them. See Figures 2, 32, and 33. Using critical frequency emanations, it has been found that resonant or harmonic square wave frequencies are best suited to devitalize micro-organisms. Sodium chloride and other chemical elements can be removed from water by application of resonant and harmonic frequencies applied to platinum electrodes. Polarized Direct Current has also been

used. Chlorine gas rises to the top and sodium settles to the bottom of the liquid container.

Such previously described processes cover a much broader range of application to chemical transformation than is expressed in the examples illustrated. Processes herein specified release multi-vibrational forces of energy in liquids, solids and gases and when coordinated with resonant and harmonic frequencies cause changes in the elements and their compounds so that transformation occurs and results in gravity separation and are not redissolved.

Operation of the Crane Sea Water Conversion Process would recover fresh water, gases, and minerals. Gases and minerals are recovered from the resulting brines from sea or brackish water. Total solids are about 35 pounds for each 1,000 pounds of sea water. I consider 23.4 pounds of solids for this extraction data: This is illustrated in Figures 1 and 2 in block diagrams.

Sodium chloride	16 1/2 tons at \$ 5.25/ton	\$ 87.67
Magnesium (metallic)	.9 tons 378.40/ton	340.53
Bromine (additive)	155 lbs. .56/lb.	86.80
Fresh water	(1) acre foot at \$43/acre foot	<u>43.00</u>
	Revenue per acre foot -----	558.00
Kilowatts made:	110,000 at 1¢/Kilowatt	<u>1,100.00</u>
	Total revenue per acre foot-----	\$1,658.00
	Estimated operating cost per acre foot	<u>150.00</u>
	ESTIMATED NET PROFIT PER ACRE FOOT-----	\$1,508.00

Remaining salts, elements and compounds also can be recovered. Calcium sulfate and carbonate have value as cement materials. Sludges extracted are equal to ores and are ready for final recovery processing. The steam drives turbines and is condensed into fresh water for the market.

Although conventional turbines may be used this invention describes and illustrates steam and gas counter-rotating turbines as prime movers to develop shaft horsepower. The steam turbine receives steam from the center shaft through counter-rotating seals which passes through a plurality of exhaust nozzle vanes and the steam impinges into a counter-rotating series of turbine blades, transferring torque power in both directions directly to each supporting shaft to generate shaft horsepower.

In the gas turbine a combustible mixture passes in through a central shaft and enters holes in the combustion chamber where it is ignited and continuously burns. The gases expand and pass through the exhaust nozzle vanes into counter-rotating turbine blades, transferring power directly to the supporting shafting to generate shaft horsepower. See Figures 16, 17, 18, 19, 29, and 31. When air is mixed with fuel, compressed and directly forced into combustion chambers and ignited, combustion products pass through exhaust expansion areas doing work by expansion, reaction, and impulsion, forcing the rotation of the combustion chamber like a pinwheel reaction. Continuous flow cycles do not require timing gears to control cycles of operation. The fuel/air mixture is 1 to 15 parts of air. Performance advantages include: (1) zero end thrust on the bearings (2) forces applied at maximum lever arms (3) power impulses are smoothed out (4) half of the kinetic energy rotational forces are aided by gravity (5) counter-rotation means slow speeds for longer bearing wear and minimum operating stresses (6) reduced friction owing to short radial traverse for gas travel, (7) self balancing rotation forces.

Of the basic methods for producing shaft horsepower, the Crane method of rotating combustion or thrust chamber combined with external counter-rotating turbine buckets of flow through

radial passages will produce more power at sonic and supersonic flow per pound of fluid moved, because of the applied leverage, reduced friction and passages, and increased rotary torque that creates rotary force moments.

Another object of my invention is to provide a gas turbine engine that can utilize either axial flow compressor blades in counter-rotation on one or both sides of the combustion chamber. Another object of my invention is to provide a gas turbine engine that can utilize either a centrifugal compressor on one or both sides of the combustion chamber. The elimination of the nozzle diaphragm in the Crane Turbine Engine compared with other types of conventional gas turbine engines is a performance improvement. Thrust increases as jet velocity is increased. Mass gas flow is increased with an increase in pressure. Both are controlled by the amount of fuel burned. The combustion chamber is cooled by incoming gases which pass around the outer walls and gain thermal energy.

A further object of my invention is to convert solar energy into heat to make steam by means of focused mirror reflectors that concentrate light into blackened or colored liquids or into black metals or materials that conduct heat, thus allowing heat transfer into adjacent liquid. The heat sink may be flat or formed to provide additional area in the heat zone for better heat transfer. My invention provides axial heat to any desired length as shown in the drawings. Solar energy can be 200 btu's per hour per square foot. The reflector surfaces are to be located along the sun's azimuth angle, which is the angle measured horizontally from the North Meridian. The reflecting surfaces are pivoted and located perpendicularly to the angles of altitude measured vertically between the sun and horizontal plane of the horizon, located east to west so that for any given day nothing moves after

the angle of altitude is set.

Conversion of water into steam by solar energy is aided during dark or cloudy days by hot brine derived from the distillation process, which can be superheated and applied next to heat transducers or heat sinks. Hydrogen gas can also be used to provide heat on dark or cloudy days. Partly cloudy days will be supplemented by additional heat from the focusing in of more reflectors or less reflectors for reduced heat. Performance advantages of 1200 square inches acting on one square inch of heat sink surface produces 550°F plus ambient air temperature. Another object is to provide a heat sink clean out by double acting hydraulic means to remove brine from encrusted ducts. This is shown in Figure 10. Steam flows up through the connecting ducts, which extend into the upper pipe about 1/2 inch so that condensed water will not flow back.

Another object of my invention is to provide a means of controlling vibration in rotating members such as wheels by including a duct around the side of the wheel within which is placed a movable medium that dynamically balances rotational vibrations. The medium used in the duct may be mercury or a small amount of ball bearings placed inside the duct and which generally remain on the bottom side.

Another object of my invention is to provide a means for using counter-rotating glass magnets in combination with ceramic magnets to generate electricity in high temperature conditions of 1000°F to 1900°F in which the advantage of glass as a good high temperature conductor of electricity can be utilized in conjunction with rolling contacts to remove generated electrical power from hot steam or gas turbine engines or other types of rotary units.



Another object of my invention is to provide a recovery system for sewage and refuse as a part of the pollution control process. Sewage consists of 999 parts water to 1 part solid matter. Of solid matter about 1/3 is in suspension and 2/3rds in solution. Suspended solids contain fecal matter, garbage, paper, plastic, rags, sticks and leaves. Much of the suspended solids can be removed by rotary screens and side troughs ducted into conveyors for steaming; separation in some cases by burning in enclosed conditions. Settling of solids occurs after virus, micro-organism and electronic deionization. Grease and finely divided solids are next condensed down into a heavy brine, part of which is dried out and removed by infrared heated conveyor belts and part is drained from the bottom for separation processing as illustrated in Figure 2. Gases of the preliminary stage are first removed. Gases and steam developed from infrared heating in the liquid and above the liquid are removed for separation-recovery processing.

From the refuse, garbage is needed for composting; mixed with layers of nitrogen, phosphorus, and potassium (10-10-10) a marketable composted material is made for farming. Materials from refuse are recovered in material separations first by functional handling equipment, conveyors, vibrators, classifiers, compressed air separators, physical sorters, washing, shredders, centrifugal separators, bailers, non-magnetic separators, vibrating screens, paper mill recovery product separation, shaker tables, product salvage areas, tin and aluminum can separators, rubber and plastic separators, wood recovery units, and other recovery units as needed. Sewage and refuse next progress down into the steam recovery unit shown in Figure 23. In the steam recovery unit tremendous amounts of heat are applied and steam jets are activated below while pH injector units control the desired pH to

a near neutral balance. As the conveyor moves dried solids up to a recovery chute, a rotating brush aids in recovering the dried solids that are processed further for selective separations.

Recovery of gases starts by placing them into water by forced gas and water sprays. Insoluble gas is handled in (1) Gravitational settling chambers (2) Inertial baffle chambers or centrifugal apparatus (3) Filtration as in bag filters (4) Additional sprays as in scrubbing towers (5) Electrical precipitators and resonance deionizers (Fig. 2) (6) Compression of gases remaining into liquids for gravity separation and solar evaporation (7) Use of gases recovered for fuels (8) Water gas and steam process, a continuous catalytic process over from iron oxide use and the use of carbon monoxide and steam at 842°F to make hydrogen gas (9) Liquid condensation and liberation by electronic means. The entire processes are enclosed thereby having a performance advantage compared with conventional sewage treatment plants which further pollute the soil, water and air.

Another object of my invention provides a virus and bacteria eliminator which devitalizes all micro-organisms in liquids that pass through the electrocuting areas. Fever causing viruses cannot be seen with ordinary microscopes. As shown in Fig. 24 the Virus Eliminator is used in water pipes of any size. Performance advantages include: (1) fatal to all living things passing through a 50 volt force field (2) prevents freezing in pipes (3) used to distill or preheat liquids (4) prevents disease by killing its cause (5) eliminates the need for injection of chlorine and fluorine in water which are poisonous chemicals applied to drinking water (6) replaces the Pasteur Treatment for milk wherein organisms are only partially controlled by heat which destroys valuable enzymes, vitamins, and nutrients in milk

(7) used to electronically sterilize other liquids such as blood plasma, injections, foods, drugs, etc. (8) used to prevent contamination and corrosion. With a smaller wire in the center of the pipe that is insulated from the grounded pipe, the higher is the resistance in ohms and current use is reduced. Use of this device will eliminate the rise in the death rate of people caused by virus contaminated water in the homes and in the hospitals.

Another object of my invention is to make liquid hydrogen from water, which supply is unlimited. As shown in Figure 2, power is supplied to an electrolysis double electrode while the field is subjected to high intensity magnetic force. RF (Radio Frequencies) and polarized direct current are also used at varying voltages from 1 to 5000 volts and using magnetic fields from 2000 gauss and up. Platinum is preferred for the electrode material. Oxygen comes from one electrode while hydrogen is made from the other. Pure water is necessary to avoid contamination with other element gases like chlorine etc. Hydrogen is liquified by high pressure pumps and other methods. Liquid hydrogen can be mixed with water to reduce its flame propagation rate and to make a safer fuel with low pressure fuel storage, performance comparable to gasoline, clean burning combustion, and non-polluting fuel which is a matter for human survival.

Another object of my invention is to provide a method and means for retarding old age that is generally caused by polluted cells from the lack of magnetic positive polarity and concentrated cosmic energy combined with pulsed magnetic energy. Cosmic energy is reflected as shown in Figure 37 from four sides into a pyramid in which a patient sits. The pyramid is made of layers of metal and alternate layers of plastic. Electromagnets are located at five corners inside the pyramid with the positive poles facing to the center. The pyramid is insulated from ground.

The pyramid may be also used in conjunction with ray tube transmitted energies from the magnet replacements or additions as shown in Figure 33 and in conjunction with direct type applicators as shown in Figure 38 with the square wave audio portion being energized by circuit shown in Figure 32. Pulsed direct currents applied to the electromagnets are on 3 seconds and off 2 seconds to react on the lymphatic systems combined with voltages of 30 volts. Each magnet draws 2.2 amperes. The ray tubes draw 15,000 volts while the direct type applicators use 5 to 10 audio volts. The cosmic mirror reflectors are preferred at angles of 1 to 45 degrees. The most effective angle found so far is seven degrees.

This pollution control invention is described with various embodiments also shown in the drawings. It is understood that the same have been given for the purpose of illustration and not as a limitation upon the scope of the invention. While I have disclosed what I deem to be practical and efficient embodiments of my invention, I do not wish to be limited thereto as there may be changes in the parts without departing from the stated principles thereof where further objects and advantages of my invention become apparent from the following specifications and drawings illustrating the principles thereof.

A BRIEF DESCRIPTION OF THE DRAWINGS FOLLOWS:

Figure 1 is a diagrammatic representation of a saline water conversion process that recovers fresh water, steam, gas and brine with minerals, and is set up for the turbine to drive operating pumps and to drive an electric generator for the purpose of making electric power from solar energy or in the alternative, any form of energy presently used to supplement solar energy when the sun is ineffective.

The treated system starts with the inlet at 10 where stationary or traveling screens remove the coarse media. It is desirable to take advantage of gravity by lowering the remaining units. A boost pump 14 is used to conduct liquid through solar pre-heaters 11. The pre-heaters 11 face the sun with blackened surfaces to aid in thermal conduction. The liquid moves to the Virus Eliminators and Filters at 12 and passes on to the solar cells 13 as represented in varying details of optional solar use by optical reflectors as later illustrated and described. The brine is drained off as shown at Fig. 1a, 1b, 1c and from tank 40 pumped through at 14 to preheat water.

Fig. 1a shows the application of solar heat being intensified and transmitted through a copper heat sink that has been blackened with cupric oxide for intense heat transfer. The solar heat improvement is given in axial heat as shown in Fig. 4 and again in a simple solar cell of Fig. 5. The application is alternately used as illustrated in Figs. 6 through Fig. 15 and, in part, collectively shown in Fig. 1a to 1c where solar radiation is concentrated on a metal tube heat sink conducting liquid to obtain the desired heat of 520 degrees F for steam turbines. A hydraulic clean-out is activated by a double-acting hydraulic cylinder 66. Brine to heat water is pumped from tank 40. The steam is sent direct to turbine 19 supported by sufficient pressure from inlet pump 14. Steam is alternately ducted to superheaters 15, auxiliary heaters 16, 17, and 18 to supply the turbine when sun is ineffective. Multiple turbines 19 are used to make distilled water which travels through conductor 21 to condenser 22, on through heater 24 into condenser 25, to duct 29, to 19, to 26 and 30, to condenser 27. Steam goes to heater 28 to turbines 19 to condenser 32 aided by vacuum pump 35. Condensate 33 is pumped by pump 36 to product water tank 41.

Condensate from condensers 22, 25, and 27, is taken by pump 39 to tank 41 controlled by valves 37 and pressure regulators 38 and

and relieved by relief valves 23. Turbine 19 drives electric generator 20 to make electric power. Other shut-off valves control the flow of brine to tank 40 which is a source for demineralization and gas recovery processes shown in Fig. 2. Excess condensate is taken to vacuum pump 35 that drains into product tank 41. Final steam from turbine 19 is ducted by way of pipes 31 to vacuum condenser 32. Steam to be reheated is moved through duct 34 of Fig.1.

Fig. 2 is a schematic for recovering brine components. From Fig. 1, brine at 40 is valved to 42 into electric cells 47 via duct 49. The charged or uncharged magnets 62 and the liquid is energized by one or more Frequency Generators at 56 through 58 and polarized by DC supply 59 through conductors 45 and 46 of Electrodes 43 and 44. Gas from the deionization process at 43 and 44 is recovered in tank 48; minerals are drained off into tank 60. Part of the liquid is pumped at 42 via duct 50 to an electrolysis separator with electro-magnets aiding the process. Electrodes 51 make hydrogen gas which is collected in tank 53. 54 is a vacuum pump, and electrode 52 makes oxygen gas collected at tank 55. Tank 60 is exposed to frequencies in and out of the tank from antenna 70 energized by audio oscillators 67, radio frequency generators 69 checked by frequency counters 68. Elements are deionized in tank 60 and settle by gravity or are drained off into settling tanks 61

After additional time for settling into different specific gravity levels the fluids are tapped off at different levels 63 and 64 and finally drained off into evaporator trays 65. These minerals are recovered for product usage. The recovery system is designed to be coordinated with currently known standard systems of element and compound recovery means and methods. The electrolyte sodium chloride is of great assistance in certain phases to provide efficient conduction of current. Platinum has been found to be the most stable metal used for electrode materials. Better performance is accomplished by this

method set forth wherein radio frequencies, audio frequencies, magnetic fields from energized magnets and polarized D.C. current combinations are used to dial out (with variable voltages), the liquid into instant gases.

Whereas I have found that impressing a resonant frequency on terminal plates 43 and 44 from a single frequency generator such as 56 is effective in changing the characteristics of the chemicals in solution, I have also found that the use of multiple frequency generators for the purpose of impressing several frequencies forming harmonic chords is more effective in combination with high strength magnetism to change or transform the characteristics of the chemical compounds in solution.

I have also found that polarizing or biasing the plates 43 and 44 by attaching a source of direct current to the plates gives an assist to the chemical processes, and plating can be observed.

I have also observed that the solubility characteristics and chemical resonance of certain compounds can be altered by subjecting the solution thereof to the action of electro-magnetic and cosmic energy corresponding to the resonant or harmonic frequency of such chemical compounds. For example; ordinary sea water was subjected to radiations having a frequency range of 50 to 1,000,000 cycles per second in square and sine waveform patterns. It was observed that the various chemical compounds dissolved in water, settled to the bottom in stratified layers corresponding to their own specific gravities and that the top portion of the water became sufficiently clear and pure for domestic use.

The above examples and descriptions are intended as research illustrations only, and are not to be considered limitations on my invention; also, the specific device and setup illustrated in Fig. 2 and in more detail in Figs. 20, 21 and 22 constitute what I

consider to be the preferred and most efficient means for producing and directing electro-magnetic and electro-static energy into the media along with other transducers used.

The different applications of heat concentrator methods for axial distances are further shown in Fig. 11 and Fig. 12 which are shown in partial views. Other heat concentrators are shown in Figs. 13, 14 and 15 where plastic or glass transparent material is liquid-filled to provide magnifying power or it may be solid. All that can be done with heat derived from combustion can be done with solar heat. Storage of the solar cycle may be made in fuel cells and batteries where electricity generated by day can be utilized at night and can regenerate car batteries in transit. Storage also occurs from liquid hydrogen, which fuel can be used when the sun is ineffective.

In Fig. 16 a supplemental steam turbine is shown in cross-section. Gas enters at 71 into a rotating chamber at 72 with fixed rectangular exhaust (nozzles) 73 supported by bearings and sealed by rotating shaft seals 74. A counter-rotating turbine wheel is shown at 75 with suitable ducting 76 to condensers or reheaters. Useful shaft horsepower is derived at 77 and 78 to drive pumps and generators for electricity. Cross-section of chamber 72 is shown in Sec. 17-17 of Fig. 17 showing a diagrammatic section view of the turbine wheel 75 presenting a resistance to the gas flow for more intense torque recovery in the opposite direction for additional shaft horsepower.

In order to use converted water and power during periods of time when the sun is not shining, in addition to conventional prime movers, I have formulated and devised a counter-rotating gas turbine engine as shown in Fig. 18 which relates to an internal combustion engine and particularly refers to a rotary or turbine



type of prime mover in which a combustible mixture is ignited in a circular rotating chamber and which expands therefrom to impinge upon a plurality of vanes similar to those in Fig. 17 at 73. The air, after being compressed by compressor blades, drives the combustion chamber 80 and its supporting shaft 82 to generate power. This portion of the invention broadly comprehends a body forming an inner and outer chamber, both stationary and both concentric with the engine axis, the inner chamber 80 forms a housing for intake air compressor blades of the axial flow type. The outer turbine forms annular passages supporting counter-rotating compressor blades. Impact blade areas of the turbine oppose the thrust exhaust of combustion chamber reaction thrust. The turbine is geared or coupled with torque converters to the combustion chamber 80 and feeds back power into the center shaft 82 for high torque. Injection nozzles are located at the intake 79 and in areas through combustion chamber 80.

An alternate mode of arrangement and operation comprehends the compression of air and its admission, together with a metered amount of atomized liquid fuel, into the combustion chamber 80. The exhaust gas goes out at 81. Power is derived from shaft 82. A suitable housing with accessories is shown at Fig. 19. Initial ignition is at the spark plug 83. From the outline of operation just described it will be appreciated that a very small, efficient gas turbine has been devised that embodies no elaborate cam mechanisms, valves, timing gears and the like. All parts may be made by simple fabrication methods and are readily accessible by simple disassembly procedure. Normal accessories are shown on the side of the gas turbine engine housing.

Fig. 20 shows a Frequency Instrument of the ray tube type which controls microorganisms. One device shown and used in the practice of my invention for the treatment of harmful micro-

organisms comprises essentially an audio frequency generator 84 combined and modulated to a Radio Frequency Transmitter 85 in which the resonance of the tuned circuit is made variable by a tuning condenser 86 of 350uuf capacity.

The Frequency Generator 84 may be provided with a band switch 87, frequency tuner 88 and a volume control knob 89.

Whereas any satisfactory means for controlling and directing the broadcasting of such electromagnetic energy can be employed, I have found the most efficient method to be a glass envelope 90, an electronic gun 91 and a reflector concentrator 92.

The tube 90 should be evacuated of all air and refilled with helium gas to a pressure of approximately 14 mm of mercury. Whereas all the gases found in class "0" will work, I prefer the use of helium at resonance of brilliance because it stands up better under continuous use.

In order to treat certain bacteria, virus and other micro-organisms so that they will be devitalized, it is first necessary to determine the color range of their frequencies under a polarized microscope and then to coordinate the resonant or harmonic frequencies to a segment of the frequency spectrum (as published by the Bureau of Standards) with matching colors which includes the known frequencies for the colors found for such bacteria, virus, worms and fungi.

It has long been established that many diseases are incurable and may prove fatal. It has been well known by Rife, myself and others that a specific cancer virus causes the cancer which was long ago isolated by Royal R. Rife and cancer was cured by Rife in animals and in clinical tests with people and was published by the Smithsonian Report for 1944 on pages 193-220 as written by

R.E. Seidel, M.D. (and see U.S. Government Printing Office Publication No. 3781 which has 5 plates of Rife's microscopes). It was observed that electromagnetic energy utilizing a frequency of 2127 cycles per second modulated on a carrier wave of 4150 kilocycles at 200 watts was lethal to cancer. Such virus as cancer and other viruses such as tuberculosis, typhoid, polio and many others are a threat to health in water. A great many other viruses have been destroyed by subjecting them to transmitted electromagnetic energy of frequencies which are resonant or harmonic with such virus. The precise frequency required for their demise and control is set forth in the following table:

Tetanus 120 cps, treponema 660 cps, gonorrhoea 712, typhoid 712 cps, staphylococci 728 cps, pneumonia 776 cps, streptothrix 784 cps, bacillus coli rod 800 cps, tuberculosis rod 803 cps, streptococci 880 cps, tuberculosis virus 1552 cps, sarcoma virus 2008, carcinoma virus 2127 cps.

Fig. 21 shows the direct method of electrocuting virus, worms, bacteria and fungi with audio frequencies from an audio generator 93 having a band switch 94, a frequency tuner 95 and a power knob 96 to control 0 to 10 volts minimum r.m.s. of audio voltage (with resonance taking about 5 minutes minimum) having transducers 97 and 99 about the part being treated 98; such part being a liquid solution or a human body or food or animal in need of micro-organism control.

I have found by Frequency Instrument research that all disease can be eliminated with the application of such energy which is harmless to human cells but lethal to microorganisms because the cell walls of the human or animal can stand the potential energy level which is lethal to disease organism like viruses, worms, bacteria and fungi. In liquids the devitalization effort is 100

per cent effective because there is no immunity to electrocution energy either electrostatic or electromagnetic and the disintegration of the microorganisms is observed. Transducers may vary in their application with salt solutions, depending upon the degree of electrolyte.

It has been observed in thousands of tests that microorganism entities of any kind or size from 5 foot long worms on down to microworms and the largest variety of bacteria may be observed to succumb when exposed to electrocuting frequencies applied with 2 to 10 volts in the simple test setup in Fig. 22. This employs an Audio Generator of any kind at 93 connected to two copper electrodes in a plastic slide 101 glued in place. The fluid medium is placed in the center recess and microorganisms are observed. The Frequency Instrument is "turned on." Microorganisms expire and completely disintegrate.

The death slide 103 supports the copper electrodes 101 and 102 and the standard microscope 100 is shown. The increase of this energy in larger transmitters can devitalize birds, fish and other objects to be controlled. This method offers the only safe and positive control for unlimited water supplies for our cities where harmful and deadly microorganisms are the greatest threat to all mankind as published by the American Chemical Society years ago.

Fig. 23 is a cross-sectional representation of the Sewage Recovery Unit Separator. The raw sewage is admitted at inlet 104. Acid or alkaline chemicals are admitted through conductor 105 in which several inlets are provided to balance the degree of alkalinity or acidity as required and to reduce corrosion. A series of pH indicators are remotely used to monitor corrosive conditions.

The sewage is sprayed with steam jets from the inlet steam supply 106 that agitate and induce heat into the solution. Steam heat is exhausted for other uses at exhaust ducts 107. Infrared heaters of the ceramic self-cleaning type are located at 108. The brine is drained off from time to time at outlets 109; a shut-off valve 110 is located for remote control to maintain the proper level in relation to the distillation processes. A conveyor 111 takes dried chemicals up and out of the brine solution, which are brushed off with a rotary brush 112 and then pile up in a chute below at 113 and are then removed by a conveyor below (not shown) for further separation.

Fig. 24 is a side and end view of the Virus Eliminator for home use. The Virus Eliminator has multiple electrodes for larger pipe 114 in the electric force field areas. The Virus Eliminator is mounted on the side of a pipe in which a hole is drilled for its entry. A small platinum wire 115 has a glass seal bead 116 that rests on a small "O" ring 117 all of which is held in place by an adjustable stainless steel clamp 118. An electric wire 119 is attached to the center electrode 115 and a ground wire 120 is attached to the outside of the clamp. A lamp 121 may be used in series to reduce the house voltage of 110V to 55V or dual pipes with the same set-up may be used or dual attachments in the same pipe may be used to reduce the supply voltage to a normal 50 to 70 volts variable by line loads. Higher voltages would handle more Virus Eliminator units in series. Flow shut-off switches are used.

Fig. 25 is an end view of a solar cell 122 made of opaque or transparent material. The walls used for the outside cover are made of quartz or glass. The inner two walls 123 are made of blackened material to act as a heat sink for the concentrated solar energy or infrared energy to transfer the heat into the liquid 124 to be distilled. The center duct 125 is for hot brine

to provide distillation in combination with or without external infrared heat when the solar energy is off. This solar cell works as an alternate with the one shown in the center as indicated by Sec. 25 and by solar arrow 126 of Figure 26 and 28, etc.

Single or multiple reflectors may be used on one side or both sides of the solar still. Fig. 26 shows a simple solar cell unit in which reflectors 127 are pivoted for focusing on heat sink 128 held in container 129 and supported by base 138 that rotates by gear arrangement at 131 and changes axis at 132 which is controlled for following the sun's path of daily overhead orbit with photocell sensors at 133 on base 139 to cope with earth's rotation with another photocell "go and no go" arrangement working through contactor 148 to motor 136. A jack screw 134 is actuated by motor 135. A worm gear drive motor 136 is actuated by control 130 as the sun's rays are ducted into tubes 141 to photocell controllers. The unit is mounted on base 138 and hinged at pin 137. A rotating base 138 rotates 360 degrees to provide hinged tilting motions in all planes. 138 rotates with the aid of caster wheels 140. The direction of the solar radiation is given at 148.

Fig. 27 is a perspective view of the reflectors 127 to show the area of the heat sink 128. Polluted water enters at 142 and leaves as brine at 143 and steam at 144 from container 129. This view represents a 3 to 1 concentration of solar radiation and is an example of how the entire solar heat sink surface will be absorbing heat from the sun. More or less heat required is made by focusing in or out reflectors to reach desired temperatures.

Fig. 28 is an end view showing the solar cell for heat energy transfer of solar heat to distill polluted water. Reflectors 127 concentrate solar heat into solar cell 129. Heat sink 145 is formed so that more metal area is exposed into the concentrated

heat zone in several directions. This utilizes greater heat transfer in the same given heat zone by applying hundreds of times more heat area for induced heat transfer.

Reflectors may be on one or both sides. In the case of reflectors 127 on one side, the liquid or polluted water is on the top side while the hot brine for heating the polluted water is on the bottom side. When solar heat is reflected from both sides two heat sinks of 145 would be located at the center to provide additional heat transfer. Hot brine enters at the inlet port 149 and goes out at the exhaust port 150. Polluted water enters at inlet port 151 and steam comes out at 152. The hot brine is used in the center of dual heat sinks 145 to make additional steam.

Fig. 29 is a side cut-away view of the steam turbine electric generator combination. Magnetic seals 153 are located at each inlet 154. The steam inlet 154 is attached at each end of the turbine. The main turbine housing 155 supports the entire assembly. The center pinwheel shaft 156 is mounted on two bearings 157 and carries multiple windings 158 of a circular nature made of glass or other materials with contact made by rotating rollers 165 insulated as connectors. The counter-rotating turbine blade assembly 159 carries ceramic magnets 160 or magnets made of the other materials that are used to generate electricity. The steam enters in the center of the pinwheel shaft 156 at each end and exhausts through a series of closely spaced thin blades 161 as exhaust nozzle ducts equally spaced all around the circumference. The ducts 161 are shown in a cut-away view like Fig. 17 with 161 as 73 and turbine blades 162 similar to 76 of Fig. 17. Pinwheel 156 supports 161. The steam is exhausted through blades 162 after driving them in counter-rotation and comes out through the bottom area of the turbine near 163. The turbine blades operate like a water wheel effect taking advantage of gravity and zero end

thrust on the ball bearings 164 and 157 which locate the two rotating assemblies. The unit may be mounted in any plane. The wires 166 are the power conductors. A major advantage is the tremendous elimination of friction losses when compared with the long distances traversed by conventional axial flow turbines from the inlet to the exhaust outlet.

Fig. 30 is a schematic diagram of an application of solar energy working to produce electric power, liquid hydrogen, and fresh water from polluted, saline, or brackish water. The liquid enters at 167 and passes through black pipe 193 exposed to the sun for solar preheating. The liquid is next ducted into tank 168 that is separated into two or more compartments by partition 169. The second preheating occurs at the bottom when condensed steam enters at 170 from the turbine exhaust and passes over ducts 171. In compartment 172 a cosmic energy attractor is placed over the liquid and consists of a stainless steel enclosed package 173 for attractor materials that induce positive energy to orient the magnetism of the nuclei into clockwise spins of the liquid's atom electrons. A vacuum pump 174 is used to lower the water vapor tension to aid condensation of the steam entering at 170.

Preheated polluted water is next ducted to pH control 176 where the liquid is monitored and adjusted by required additions of acid or alkaline chemicals for required pH balances and passes to the Virus Eliminator 177 that electrocutes all microorganisms. After killing all the virus, bacteria, worms, and fungi, the liquid is ducted to the filters 178. The liquid is next ducted to hot brine storage tank 179, preheated in coils 180, passed into solar cell 181, and liberated as steam at 182 and brine that is drained off, as required, at 183. Hot preheating brine is continuously circulated through a pump 184 driven by motor 185 into adjacent



conductor 186 superheated by infrared heaters 187 when the sun is ineffective or when required. Steam is ducted to steam generator 175 at sides 188 through magnetic or other seals. Electric wires leading away from the unit's generator are shown at 189. Power is used to drive inlet pump 190 by motor 191 to pressurize polluted water. Turbine 175 is shown in Figure 29 in detail.

Fresh product water is available from pump 192 and conducted onward to desired locations. Product water is mixed with brine and ducted to electrolysis unit 194 to make hydrogen and oxygen gas which is compressed at pump 195 and bottled at product area 196. Liquid hydrogen represents stored solar energy and can be used to distill liquids when the sun is ineffective.

Fig. 31 is a counteraction cross-sectional side view of the Hydrogen Engine, a gas turbine using the pinwheel and water wheel principles in combination. Fuel will enter from rotating tank and pressure regulator 212 into one end of the center combustion Rotor shaft 209. 209 shaft supports the turbine rotor combustion chamber 210 and one-half of the axial flow compressor blades 211 that may be substituted for an optional centrifugal impeller compressor 213 as shown on the right side and either system may be in cantilever design at either side. The bearings 198 that support the center shaft assembly 209 are supplemented with bearings 199 that support the turbine assembly 200 that consists of turbine blades 201. A series of back-up areas 202 are located around the circumference of the turbine blades to aid turbine thrust. Power from turbine rotor is taken off at pulley 197.

Air enters at inlet ports 203, is compressed in the air compressors, ducted down to the inlet ports of the full circle combustion chamber at 204 and ignited with a hot plug at 204 when mixed with fuels introduced in the 204 area. The expanding gases

create thrust in the expansion type exhaust nozzles in the closely spaced blades 208 which are equally spaced around the combustion rotor circumference. Inlet guide vanes 205 may be alternately used to direct the flow of inlet air. Water or steam injection may also be alternately used along with hydrogen fuel to provide cooling for the combustion rotor shaft. Turbine blades 201 are shown in tapered design to provide a cupping effect on the gas to recover more thrust in the high velocity speed zone 206. The spent gases are exhausted through exhaust ducting at 207.

Fig. 32 is an electronic diagram of the direct contact Frequency Instrument used to devitalize virus, bacteria, worms, and fungi in the animal and human body. The instrument may also be used to devitalize microorganisms that live in polluted water.

The specifications are: (1) Square Wave Range; 60 to 30 KHz, (2) Output Voltage: 10K ohms and higher - 14 volts, (3) Rated Output Power 100 milliwatts into rated load (10 volts across a 1000 ohm resistive load), (4) Power Requirements: 105 - 125 volts, 50-60 cps, 50 watts, (5) Weight: approx. 15 lbs.

The circuit is described as an audio square wave generator. It consists of a vacuum-tube oscillator of the resistance-capacitance type. It consists of a two tube oscillator that oscillates at the resonant frequency of the Wien Bridge frequency determining network inserted in the feed-back path. The oscillator is coupled to a cathode follower amplifier that acts as an isolation stage and as a power amplifier. The square wave is formed by a dual clipping circuit that is inserted between the oscillator and the cathode follower stage for square wave stage output. The tube type audio square wave oscillator can be replaced by a transistor type circuit.

Normal power applied to a human body is three to five volts A.C.

The circuit description is divided into 5 parts: (1) The Frequency Determining Network [ A ], (2) Negative Feedback and Automatic Amplitude Limiter [ B ], (3) Square Wave Shaping Circuit [ C ], (4) Cathode Follower Output Circuit [ D ], and (5) The Power Supply [ E ].

In the Frequency Determining Network the circuit design is such that the voltage applied to the first oscillator control grid is in phase with the voltage applied to the whole frequency determining network. In addition, the grid voltage is always one-third of the voltage applied to the whole network. This is a characteristic of the Wien Bridge at resonance.

In the Negative Feedback and Automatic Amplitude Limiter the negative feedback voltage used in the oscillator section is derived from the output of the second oscillator tube 215, and is fed back to the cathode of the first oscillator tube 214. The magnitude of the negative feedback is determined by a resistor network including an incandescent lamp and the resistance of the lamp increases with increased current. As a result the degeneration in the cathode circuit of 214 increases, causing less amplification in the oscillator section. Thus, the lamp serves as an automatic amplitude limiter.

The Square Wave Shaping Circuit is formed from the sine wave output of the oscillator section. The sine wave is fed to the grid circuit of 216 (left half), where grid limiting occurs. As the opposing voltage increases with increasing positive signal, clipping occurs. While the grid waveform is independent of the cathode-plate conduction through the tube, the plate waveform is not. As the grid voltage dips below the cut-off point on the

negative half-cycles, cut-off limiting occurs and the negative half of the plate waveform is flattened. The right half of 216 follows the plate of the left half. In this section, the rounded bottom of the wave is clipped, and the resulting square wave amplified. The squareness of the wave is increased in both sections of the tube due to the non-linear tube characteristic. The square wave is far more effective against microorganisms because the fundamental and all of the harmonic frequencies go with it, hence causing a "shotgun" devitalization.

In Cathode Follower Output Circuit when the voltage is applied to the grid of tube 217, the current is varied throughout the tube, which in turn varies the voltage across the total cathode resistors. The output voltage is taken out through the large capacitor which presents a very low impedance over the entire frequency spectrum. The cathode resistance is split into resistances to provide the proper bias.

The Power Supply is a conventional full wave rectifier circuit at 219. The LC network effectively filters the DC voltage of the rectifier. B+ voltages are filtered for tube 214 and 217 by RC circuits. 110 Volts A.C. enters at plug 218.

The output from the Frequency Instrument is directed into two metal transducers 220 that are placed on the human body to conduct electrocuting frequencies in and throughout the entire body. Blood has about 5 per cent sodium chloride, a good electrolyte which makes an excellent conductor and is generally completely circulated every 3 to 5 minutes so that its components pass by the transducers in the zone of maximum intensity for devitalization. In deionizing use the Frequency Instruments are shown in Fig. 2.

Fig. 33 is an electronic diagram of the Ray Tube Frequency Instrument which consists of a Hartley Oscillator modulated with a

square wave generator. The RF energy level is in excess of 8000 volts and the ray tube is generally filled to 15 mm of helium gas after thorough evacuation providing a brilliant pink discharge glow when activated as an antenna to transmit audio frequencies. The unit has been supplemented with a Frequency Counter to monitor the critical resonant frequencies induced from the variable oscillator.

The specifications are for my experimental model No. AZ-58: (1) Audio range 50 to 6000 Hz, (2) Modulated carrier range 4680 KHz, (3) Distortion - less than 0.6 per cent, (4) Input power requirements - 350 watts, 105 - 125 volts, 50 - 60 cycles per second A.C., (5) Output voltage - 7000 to 15,000 volts to the Ray Tube, (6) Audio Frequency Calibration by frequency counter will be made for each individual microorganism at time of installation as follows: Tetanus, Treptonema, Gonorrhoea, Typhoid, Staphylococci, Pneumonia, Tuberculosis, Streptothrix, Bacillus Coli, Sarcoma, Carcinoma, Streptococci, etc.: special settings for other diseases on request, including the common cold and flu viruses, (7) Treatment time is normally three minutes for each calibrated dial setting. A three day interval is suggested between treatments to allow the lymphatic system to recover from its overload caused by the cosmic devitalizations. Unlike the preferred embodiment of the application of 5 volts in the human body by direct contact of the Frequency Instrument, and by 50 volts of the Virus Eliminator, the Ray Tube Frequency Instrument has its preferred embodiment from the ray tube which occurs when the circuit is tuned and trimmed to the following values:

TUBE	NUMBER	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9
12AT7 (H116)	221 (T102)	200 VDC	NR	4.25 VDC	NR	NR	290 VDC	NR	6 VDC	6.5 VAC
6AQ5 (H117)	222 (T103)	4 VAC	4.25 VDC	6.2 VAC	140 VDC	105 VAC	4 VAC			
6X5GT (H118)	223 (T104)	NR	300 VAC	NR	300 VAC	NR	NR	800 VAC		
812-A (H119)	224 (T105)	6 VAC	NR	195 VAC	6 VAC	[Plate = 2900 VDC]				
816 (H119)	225 (T101)	2500 VDC	3500VAC (Plate)		2500 VDC	[Heater = 6.6 VDC]				

Note: NR: Means Not Readable or No Connection to Pin.

The voltage delivered to the Ray Tube Antenna is preferred at 9K Volts; carrier frequency at 40 to 90 MegaHz and distance to target of the human body is twelve inches for five minutes duration in the treatment of cancer and other diseases. Ray tube 226 is on Fig. 33. The ray tube 226 has mirrors to concentrate energies.

The control of pollution is embraced with the foregoing preferred embodiments in all phases of this document. The preferred embodiments are stated in the descriptions and in the drawings of this patent application throughout its disclosure.

From the specifications of the pollution control operations and processes, methods, and means just described in the description herein, it is understood that many changes could be made without departing from the essential features of this invention, and that many of the features may be used individually as well as collectively to effect the desired anti-pollution result, as the case may be, and all such modifications as come within the scope of the appended claims are embraced thereby.

Fig. 34 is a cross-sectional drawing of a Smoke Filter. Smoke to be filtered from the air enters at 227 and proceeds into the

inner filter chamber where it is sprayed with liquid at 268. Part of the smoke is sprayed into the liquid at 269 and part of it continues to blower 228 that conducts the smoke into the liquid below the whirling blades 229 (and motor) and is recirculated back into 269 while the insoluble smoke is drawn off to liquid compressor 230 and ducted into tank 231 for gravity separation and further recovery processing at 232. Concentrated liquid is drawn off at 233 for further recovery of chemical components. pH control of the liquid is monitored at 234 and alkaline material is injected into 227 from 234. If the liquid needs acid balancing, acid is injected from tank 235.

Fig. 35 is a representative view of reflected solar and cosmic energy for (1) the purpose of giving a bath to the person who may want a solar bath at temperatures variable up to the maximum requirements and (2) for the direction of solar and cosmic energy into rows of trees and crops which improves the growth thereof. The mirror reflectors 236 are pivoted for focusing at 237 on the object 238. The solar reflectors are supported by a frame 239. Heat from infrared lamps and other lamp sources may also be used as concentrated.

Fig. 36 is a view of a wheel which is dynamically balanced by heavy liquid such as mercury or by round ball bearings of about 1/16 inch in diameter which roll around and stay at the bottom when the wheel is in motion to aid in its dynamic balancing. The wheel 240 has a circular enclosed cut-out 241 that contains the round balls 242, and rotates on a shaft 243.

Fig. 37 is a Pollution Separator. Liquid enters through rotating seal 244 into separator 245 providing centrifugal separation at 246 for lighter liquids like water and heavier pollutants like pulp at 247 and recovered at 248 for further

processing. The separator is mounted on bearings 249 and driven by supported power unit 250. Lighter liquid is recovered at 251 for more processing, if necessary.

Fig. 38 is an exploded view of my preferred embodiment in a Frequency Instrument Transducer that is shown completely assembled in Fig. 40. The top stainless steel cover 252 is fitted over a wood frame 253 made of redwood. A hole 254 is drilled in the wood to receive an electrical standard receptacle which is wired to both sides of the receptacle from the wire 255 attached to central circuit system 256. A series of magnets 257 and equally spaced and optionally wired for higher magnetism and located in the slots 258 of a bonded kelp insert 259 made to just fit into 253 on the inside and flush with the top and the bottom of 253 frame. At each end of 256 is a silver solder attachment as shown at 260 on the inside of 261. The cosmic energy capacitor consists of 252 and 261 shown on a simple schematic diagram in Fig. 39. The transducer is screwed together.

Fig. 39 is a wiring diagram of the Frequency Instrument Transducer which shows a standard 110 Volt 60 cps plug 262 which comes from the Frequency Instrument to attach to receptacle 263 that is doubly connected to a resistance 256 and to the cosmic energy capacitor 264.

Fig. 40 is a perspective view of the Frequency Instrument Transducer 265 which utilizes magnetic energy, cosmic energy, and audio frequencies that are applied on the human body to devitalize microorganisms, unlock the bonds of poisons and change polarity from negative to positive for electron spins of clockwise rotations, and neutralizes the cell walls of virus with magnetic energy to kill microorganisms without harm to human cells and give the body a recharge to provide a metabolic uplift in all the body.



cells. It takes two of these transducers to react on the human body (in the middle) that uses the transduced energy to recover from cancer and other incurable diseases. 265 is used with the circuit in Fig. 32 and two units replace 220 units of Fig. 32.

Fig. 41 is a Pollution Control Block Diagram For City Recovery Systems for my pollution control invention that comprises combined or individual applications to control pollution of health, food, earth, atmosphere, and in liquids and specific areas. The recovery processes recover and separate gases, filter out plastics, rags, metals, wood and other materials. Liquid is pH neutralized to stop further corrosion. Viruses and bacteria are electrocuted by new electric force fields without hindering the liquid flow through the pipes.

Steam heat, steam jets and infrared heaters are used to vaporize water into steam which is then ducted off at the top of a rectangular enclosure. A conveyor removes the dried-out solids which are taken to a chute below as the material seals off the duct area to prevent the escape of steam. A special door allows the dried material to be conducted to another mineral electronic separation process to recover the minerals for resale. The large volume of steam that is removed is superheated and used to drive new counter-rotating steam turbines. The turbines make electricity to provide power for the electric infrared heaters (of the self-cleaning ceramic type) and provide power for pumps and other functions. Water is condensed from the discharged steam and sold as fresh water and for other needs such as commercial irrigation of crops and industrial uses. Brine is removed from the bottom of the tank and gases and minerals are recovered by other processes. Oxygen is made and hydrogen gas is liberated to make a non-polluting fuel.

The first phases of the process includes a means to take the gases into solution and separation chambers, and a glass enclosed duct wherein solar or infrared heat is directed to induce a temperature of 350 deg. F for reduction of the raw liquid, combustion of paper that is not screened out, and the drying of minerals that can be recovered, and the transfer of water into steam, followed by the draining off of the brine left over.

Included in the first part of the processes are a series of rotary filters which are used to mix and separate the solid materials. Screens of the rotating type conduct metal and transfer same by magnetic separators and rotating forks while rags and garbage may be separated and washed for commercial uses. Garbage is especially desired for composting and mixed with layers of 10:10:10: of Phosphorus, Nitrogen, and Potassium. This creates a very marketable compost for commercial growers. The sewage next progresses down a conveyor where heat is applied to recover the steam, dry the solids, and drain off the remaining brine at intervals. The steam may be condensed into fresh water and electrocuted to kill all remaining micro-organisms and deionized electronically to remove the remaining minerals or the steam may be super-heated and used to drive turbines that generate electric power and drive pumps and power units or the steam may be induced by electro-magnetic means into liquid hydrogen after compression and oxygen which is lacking in our atmosphere being "burned out" by automobiles, gas stoves, and other combustion processes where the oxygen problem is believed to be one of the most vital needs of replenishment facing the people of the world today. Brine is used to create sewage prior to distillation processes. A conveyor removes dried solids after the application of infrared heaters in an enclosed process. This contains all odors normally found in sewage treatments.

Figure 42 is a view of Crane Age Retarder consisting of a pyramid 266, electromagnetic magnets 267 located at the corners and the top inside the pyramid 266. The magnets are focused toward the central apex and utilize and apply positive polarity and are pulsed at 270 and at time intervals of three seconds ON and two seconds OFF. A direct current power supply provides 2.2 amperes of current to each magnet energized at 30 volts direct current. Reflectors or mirrors are located about or opposite all four sides of the pyramid. The pyramid has side angles of 60 degrees. The reflectors are shown in Figure 35. A person receiving the cosmic and electromagnetic pulsed energies is seated on the inside facing north and the pyramid is aligned so that one side faces due north also as shown by the compass. The reflectors are adjusted to an angle of seven degrees and are directing cosmic energy toward the pyramid walls. The base of the pyramid is insulated from the ground surfaces. The sides of the pyramid are made of alternate layers of metal and plastic to make up the inclosure. Performance advantages include sharpening of all five senses, retarding of old age, activation of the lymphatic system for better elimination and cell functions, reproduction and negative elimination. Application of pyramid power can be used to increase crop growth, to preserve food, to treat diseases, to generate natural power and to store and transmit it. When a rotten piece of meat, with maggots crawling on it, is placed in a small pyramid, the maggots crawl away from the meat, and out of the pyramid, and die around the outside. The energy built up and stored in a pyramid can be stored in the flesh when inside a pyramid that is activated. It is a potent healing agent. The east and west sides of the pyramid should be parallel to themselves while the north and south sides should be parallel. The triangles of the pyramid are made to be equal.

Of course, the invention is not limited to the few embodiments illustrated and described herein, as many modifications and alterations may be brought thereto without departing from the spirit and scope of the invention as set forth in the appended claim, and all such modifications as come within the scope of the appended claim are embraced thereby.

The primary objects and brief description of my pollution control invention comprise improvements in preamble as follows:

- (1) Axial solar energy heat concentrators and transducers using heat sinks, reflectors, optical advantages for controlled, variable and desired temperature ranges as required;
- (2) Counter-rotating steam and gas turbines to provide shaft horsepower for pumps, to generate electricity, to provide power for any desired use of a non-polluting nature using liquid hydrogen or any other fuel for the gas turbines and compressed air or liquid as well as steam for the steam turbine motivations;
- (3) Means to maintain distillation when the sky is dark by providing hot brine circulated through superheaters and solar cells, by providing liquid hydrogen as a non-polluting fuel to provide heat and power and the use of infrared heat to maintain distillation;
- (4) Means to make liquid hydrogen, oxygen, and other gases by using a new magnetized electrolysis process which speeds up the recovery of the gases with applied voltages of a variable nature;
- (5) Means and processes to recover raw sewage and pH controls with acid and alkaline additions to greatly reduce corrosion, and separation methods to recover brine products, solids, and water;
- (6) Means and processes to recover refuse, garbage, and trash which separate into separable components, garbage composted with

nutrient additions recovered for marketable products and the remainder directed into the sewage recovery unit;

- (7) Recovery of gases, minerals, chemicals, solids, and liquids from the sewage and refuse recovery processes wherein such items are deionized out into separate components and recovered as gases in special gas recovery systems including smoke recovery, plating, reverse plating (reverse polarity), cosmic separation, and evaporation by concentrated solar heat;
- (8) Means and methods to apply Frequency Instruments to deionize compounds, control diseases and microorganism corrosion and growths in air, in liquids, and with cosmic uses;
- (9) Means and methods to use Virus Eliminators to control microorganisms in household plumbing, in fresh drinking water, in milk, in liquids needing sterilization by cold electrocution, in pipes to prevent freezing, in pipes to provide distillation by increasing voltage rates.
- (10) Pyramids for retarding old age using pulsed electromagnetic energy.

The claim defining the invention is as follows:-

I claim:

1. Means and methods to control pollution wherein the improvement comprises axial concentrated solar heat obtained by elongated optical lenses, reflected mirrors, and concentrated infrared heat to distill liquids and use heat in desired functions for controlled, variable, temperature ranges in which water or liquid may be distilled in a vacuum and vaporized using compressed air to remove additional quantities of water vapor; means and methods to provide solar heaters, on tops of buildings with heat transducers and pre-heaters to aid in the use of heat (when the sky is dark) with pivoting and sun-following controls to use solar concentrated heat by following the sun using photocell sensors; means and methods to provide solar axial heat in high temperature applications from

methods that comprise a pollution control process using solar energy supplemented with hot brine, infrared heat and liquid hydrogen heat when burned as fuel to comprise a water recovery system by means of steam to drive steam turbines or gas turbines to generate electricity and to drive pumps for cross-country liquid conduction and transfer; and to provide processes for pollution recovery including gas separation and recovery, brine separation and mineral recovery, filtration, pneumatic separation, hydraulic separation, electromagnetic separation, conveyors, steam cleaning, frequency instrument deionizers, virus eliminators and pH monitors and controls, inductive controllers, cosmic transducers and attractors and reflectors, hydraulic double-acting or single acting pistons for clean out of encrusted brine in pipes; means and methods substantially as illustrated to reflect solar heat into blackened axial type heat sink transducers to make steam with an insulated and superheated to provide high pressure vapor for counter-rotating turbines into closed circuit condensers and to drive electric generators; means to convert steam into shaft horsepower where the steam has been raised to proper temperature and pressure controlled by pressurizing pumps as in a solar-reflected and heat concentrated axial system applied to metal or glass type solar cells to make steam for counter-rotating or conventional turbines, the turbines which may include ceramic insulated glass windings for the generation of electricity opposite ceramic magnets or in conjunction with magnets and windings made of any suitable materials used with an internal combustion high temperature gas turbine of the counter-rotating type described as having an axial flow or impeller compressor tapering upward or angularly upward on one or both sides with an air inlet on one or both sides of the housing, a duct to the bottom of the central rotating

concentrated lenses and/or reflectors into blackened heat sinks with single or multiple straight or angular and corrugated or multiformed shapes to gain more heat transfer from the concentrated solar heat zones on either one or both sides of the heat transfer distillation unit which uses inlet for polluted liquid, outlet for gas, and outlet for brine; means and processes to direct solar energy into heat sinks in progressive flow for converting water into steam and brine where the brine can be used to preheat the incoming water, a storage tank is provided to store the brine at approximately 550° F for operation of steam conversion when the sun is ineffective, another storage tank is provided for the brine after the heat is extracted so that the brine is separated into chemical recoverable products, a series of mirror reflectors spaced axially on each side of a heat sink reflect solar energy into and on blackened tubing which acts as a heat sink and transfers the concentrated heat into water to make steam, a pump provides the pressure to start the water into the blackened tubing and the steam is conducted out through a series of pipes connected to a top steam outlet pipe which transfers the steam to turbine driven electric generators, turbine driven pumps and or other cleaning purposes, a center tube is located in the blackened tubing previously mentioned which has a hydraulic clean-out with a double acting piston cylinder which actuates the clean-out wiper to remove the brine crust which forms on the inside of the tubing, alternate inlet and outlet pipes are located below the blackened tubing to admit hot brine and to remove concentrated hot brine left behind from the steam, another tank is provided to condense the steam into fresh water which comprises a basic sea water or polluted brackish water conversion system, condensers may also be provided to speed the process which may demineralize and decontaminate rivers, lakes etc.; means and

combustion chamber with inlet holes for said chamber, a fuel injection unit in each hole to be aligned into the air mixture in predetermined portions of the rotary combustion chamber, stationary vanes and vane members closely spaced around the circumference of the exhaust venturi shaped expansion nozzles of the rotary combustion chamber to form narrow rectangular passages directing the rotary thrust into counter-rotating closely spaced narrow rectangular passages at an approximate right angle to receive the thrust into the turbine blades tortuous path to induce power of the rotary combustion chamber into the turbine blades or ducts to induce high shaft horsepower from the combustion chamber thrust and from the thrust applied to the turbine blades; in a steam turbine the gas enters from one or both sides into the center through holes and proceeds up and outward through the rotating narrow passages of the exhaust nozzles provided substantially as described, which are directed into the counter-rotating turbine blades or ducts, and the steam or gas entering passes through a rotating seal, and the resulting energy from the weight of the passing gas produces rotation of the center thrustor of the turbine, where both units combine to produce shaft horsepower, to make electricity from an included electrical generator or an externally driven electrical generator and to drive pumps and other accessories while exhaust gases proceed circumferentially straight out through the tip or top of the turbine passages and are collected circumferentially to be condensed into recoverable liquids or superheated to be used in another turbine stage or for other work that the gas might accomplish; utilization of the same principle of counter-rotation for slow speed longer service life may be applied to rocket fuels where the fuel is preheated in spirally located ducts on the internal or external portion of the inner combustion chamber,



ignited and burned and ducted up and out in balanced movement; rotary vibration is contained by providing a circular duct for moving balls or heavy liquid as in a counter-balance in the internal side walls of the wheels or combustion chambers or units in rotary motion; rotary horsepower is also derived from counter-rotating turbines geared directly or indirectly or coupled with fluid drives, v-belts, and other conventional power take-off methods; axial flow compressors also may be used; a means to convert solar heat into useable energy to distill water, to distill chemicals and or metals, and to apply superheat by means of multiple reflective surfaces from solar or infrared heat sources; a means to convert heat energy into transducers with blackened surfaces or to use heat energy from hot brine and also through which the rays have been applied to blackened material in the brine, either directly through transparent material or indirectly through blackened metal or plain metal adjacent to the liquid to be distilled and that such heat transducers may be of double or finned heat sinks so that heat may be induced from both sides or from one side in single or multiple heat sinks; that such solar heat may be induced in blackened pipes as part of a preheating cycle and ducted into a hot water condensing tank or suitable condenser where the exhaust steam or hot gases coming from the working turbines are ducted into the liquid over and around the pipes carrying liquid to be preheated and prior to being sent through the hot brine tank if such preheating is desired; a means to apply axial concentrated solar heat to mine and or recover mercury in glass enclosed space in which conveyors carry mercury or mercury ore, such space having mercury recovery pumps for the purpose of condensing and separating metal; a process using axial concentrated solar heat for any heating process such as distilling and recovering oil from shale with enclosed glass

containers being supplemented with infrared heaters and ducted off by pumps or gravity to recovery towers or by ducted means of pressure or vacuum; to provide a means and process for the recovery of hydrogen substantially as illustrated and described for use as a non-polluting fuel for any purpose, such fuel to be used in gas turbine engines and to be used in units for direct distillation which utilizes jets of less and .015 inches diameter with preheating, pressure regulation, hot plug or spark plug ignition, and air to fuel ratio metering; a means and method to apply cosmic energy from multiple reflectors of the mirror type to provide heat baths and sources of heat energy and to provide heat baths of cosmic energy for human use to aid life processes in humans and in plants, trees and crops, where better quality is desirable along with higher yields; a means and method to induce cosmic energy into plants, trees and crops by providing glass or plastic of colored or laminated variety or the waved type having sufficient thickness to attract the cosmic energy and also to direct it where needed; a means and process to supplement solar energy wherein water vapors can be recovered by using vacuum to relieve vapor tension so that vapors may be removed at about 200°F with the aid of compressed air or an air type pump which conducts vapors into a water bath for recovery of the water and a means to separate brine from an accumulation settling at the bottom of the transducer unit for high volume distillation where only fresh water and low temperature brine may be desired, and in the case of liquid other than water, to use more suitable vapor temperature below the point of boiling for the involved liquid; means and processes to use infrared heat to preheat or superheat liquids for the distillation processes in solar heat combinations; means and processes to use solar heat for heating requirements such as canning, industrial processing, air conditioning, and domestic

needs; a means and processes to make hydrogen, oxygen, chlorine, and other gases wherein the improvement comprises an electrolytic method combined with electromagnetic energy in the area of metal electrodes in an optional partial brine solution to aid in electronic conduction and by and with the additional optional application of resonant and harmonic frequencies and vacuum to induce higher rates of gas recovery which may be combined with radio and audio frequencies, polarized direct current wherein hydrogen is recovered at one pole and raises upward into its own outlet and oxygen is recovered at the other pole and raises upward into its own outlet along with chlorine and other gases, depending upon the elements in solution; a means to liquify hydrogen using conventional rotary compressers to make non-polluting fuel, for storing solar energy; a means and process to recover raw sewage and refuse wherein the improvement comprises continuous processing with pH balancing by injections, such a process is used to recover liquids, gases, and solids from enclosed units wherein liquids are filtered, separated from paper, plastic, wood, metals, and other materials, deionized for micro-organisms and minerals, pH controlled for corrosion protection, conducted into steam recovery unit separators wherein liquids are heated and distilled by infrared heaters and steam jets inducting live steam under pressure to preheat the liquid and to aid in recovering solids from concentrated brine that is itself periodically removed as a separate function in the recovery process for further electronic separation and chemical recoveries, a conveyor to conduct solids out of the liquid into a chute past a whirling brush to aid in the removal of the solids, where such solids pass into a chute below for further recovery processing, while the steam is removed from the top to be superheated for driving turbines to make electricity or for steam cleaning or for preheating of the liquid; the recovery of the steam may also

be used to make fresh water and or any combination of the uses for such steam as recovered and condensed wherein fresh water is treated with virus eliminators to kill the remaining virus, bacteria, worms, and other harmful micro-organisms to achieve better purity and to treat water with cosmic and magnetic energy and electro-magnetic energy to make it more potable, to use cosmic energy attractors, and ray tube type frequency instruments to make water more potable; means and processes to treat water with nutrients for commercial farming for better crop growth rates; means and processes to recover refuse, garbage and trash wherein the improvement comprises separation of components with conveyor sorting for plastic, paper, wood, metals, and other materials, using compressed air separators, classifiers, hydraulic separators, steam cleaning from rotary filters, magnetic separators, metals and their separators, bailers and shredders, after which the garbage is separated and composted for commercial farming with layers of inorganic and organic nutrients while the rest goes into a steam recovery unit separator substantially as illustrated, where further separation occurs and all of the products are salvaged and recovered for reserve use and for reuse in modified or actual states; means and processes to recover gases, minerals, chemicals, solids, and liquids from sewage and refuse recovery processes wherein the improvement comprises deionized separation out of materials in tanks with sonic and supersonic transducers reflecting frequencies back and forth to provide directed agitation and or to be combined with the induction of cosmic, radio frequency sources, and audio frequency sources to deionize and recover from brine solutions all components from brine and to use settling tanks with gravity and evaporation tray separations which can be also used with solar energy to accelerate the process; means and processes for inducing resonant and harmonic frequencies into the liquids of which chemicals are recovered; means and processes to

recover all smoke particles from smoke that provides water sprays, induction and liquifying constant flow processes with centrifugal blowers, rotary whirling blades in circulating water, means for pumping the water and for compressing the gas into liquid to facilitate the subsequent removal of all minerals by means of processes already described herein and utilizing a constant flow centrifugal separator substantially as illustrated ; a means and process to include the use of transmitted frequencies to control air and liquid pollution and in solids such as food and health problems where the results can be viewed under microscopes, wherein the improvement comprises methods of induction of cosmic energy, electro-magnetic energy, magnetic energy, and mechanical energy using applied energy transducers of the direct type and or the indirect type, using ray tube transducers in which the device being used is applied directly to the subject or object and which can be transmitted for long distances by increasing the applied power to the transmitter, for example 500,000 watts and etc. to deionize smog, decontaminate viruses in the air etc., devitalize viruses and other micro-organisms in liquids and in the human body and in fuels to maintain high octane and in oils to stop them from becoming rancid; to provide a ray tube frequency instrument with an RF or radio frequency transmitter modulated with audio frequencies that are variable or fixed and being tuned to any fundamental or harmonic frequencies through a ray tube that is pressurized to 14 mm of helium and energized between 8,000 and 17,000 volts wherein such ray tube has a glass envelope in which an angular electrode applied to ground or to the chassis is activated by a round or conical electrode, preferably of vacuum metal and coated with fluorescent materials to excite conduction of the rays and audio frequencies and cosmic energy pick up and with cosmic energy attractors and directors located above and

below the object and as an alternate with polished metal mirrors inside the ray tube to direct and concentrate the rays and the emanations; a direct type frequency instrument used to control and devitalize micro-organisms by electrocuting them without harm to human cells, and to activate animal or human cells from dormant cells into cells functioning by oxidation and reduction accompanied by the giving off of electrons, which is a most important life function, so that cancer and other "incurable" diseases will succumb, and so that the cause of disease will be eliminated and allow the patient to cure himself without the burden of throwing off additional poisonous drugs, dilutions of the blood stream by shots and burns of internal areas from destructive radiation from X-rays and radioactivity that makes all viruses extremely virulent to cause tumors to grow in weeks instead of the normal years and also removes any chance for human survival or recovery from such pollution; a direct type frequency instrument used to improve muscle tone and to create a metabolistic uplift in human anatomy such that with preventative treatments colds, fevers, ulcers, tumors, and fevers can be eliminated and can succumb without harm to human or animal cells; to provide frequency instruments for use in deionization of chemicals in liquids in combinations described herein and to control infections either internal or external; means and process for virus eliminators to be used in liquids to kill and disintegrate viruses, bacteria, worms and micro-organisms from natural or induced causes, wherein the improvement comprises a center electrode, preferably made from platinum, with grounded outside connection in two places to reduce 110 standard house current to 50 more or less volts, thereby setting up an electrocuting force field in a pipe or conductor to devitalize harmful micro-organisms in city mains or home water pipes etc., or in medical or industrial use, and by increasing voltages used to

prevent liquids from freezing in pipes and to distill liquids if required which will readily occur at 110 volts of alternating or direct current or faster distillation at higher voltages; virus eliminators in which multiple central electrodes are used for larger sizes of pipes and conductors or tanks that may be located in multiple positions to provide micro-organism controls for monitoring oxidation and reduction control processes and means to provide ceramic and other types of insulators in the electrode attachment and means to inspect the contamination of liquids with virus microscopes so that pollution can be eliminated where drugs and poisonous chemicals merely render liquids more polluted and where resistant strains are now thriving but cannot survive the lethal electrocution from virus eliminators set forth herein that are effective in controlling micro-organisms in swimming pools and public water systems to obviate the need for dumping poisonous chemicals such as chlorine and fluorine in city water supplies; means and processes to use virus eliminators to control virus and bacteria in food and especially milk, to replace the Pasteur treatment of heating milk to temperatures high enough to destroy valuable enzymes, vitamins, and nutritional values since the virus eliminator can kill harmful micro-organisms without heat, and can do it in a continuous flow process that saves time of processing and expense of heating, whereas the heating of milk by the Pasteur method does not kill the higher temperature harmful bacteria of infection, viruses and microworms and is not 100% effective as the virus eliminator can claim to be in its killing functions without harm to food or nutrient values; to provide a means and method of connecting virus eliminators with pilot lamps in series to reduce the applied voltage in the liquid and to provide an indicator lamp for checking when the current is used, and use of virus eliminators in multiple locations in series to

reduce the amount of current applied in any given area; the use of virus eliminators in hospitals to provide an electrocuting means to prevent infections from everything being washed with virus contaminated water, and moreover, contaminated blood and other solutions may be micro-organism controlled, salvaged and purified by virus eliminators substantially as described and illustrated herein; to provide a pollution control system and method comprised of a series of reflectors spaced about and focused upon a pyramid in which a patient sits, the pyramid having internal electro-magnetic pulsed magnets to concentrate negative or positive polarity on the patient and located at the bottom four corners and the top corner on the inside, the pyramid to be made from laminated materials with alternate layers of metal material and insulating material which is used for a capacitive effect in combination with the induced cosmic energy where such a pyramid system is used for the purposes of growing better crops, preserving food, retarding old age, and to provide performance advantages of transformation, to speed healing, to ease pain, to relax anxiety, to aid in the elimination of insomnia, to heal broken bones, to stimulate breathing and all five senses and normal body functions, to aid in eliminating all types of diseases without harm to living body cells, to dehydrate foods and other media, to aid insanity cases, and to use electrical medicine which recognizes that our bodies run on electricity, currents, frequencies for pulsed controls which energy forms can be used for beneficial regeneration, radiation reduction and for transforming the human body from a negative state to a positive state for normal well being and better health and is also used in combination with frequency instruments of the direct or indirect type and cosmic energy aids substantially as described and illustrated herein; Means and methods of diagnosis of disease to include magnetic inspection where tumors and dead tissue may be recognized



and outlined by positive magnetic polarity, by polarity changes, by magnetic transmission concentration and recordings; to include infrared inspections where the heat reflected through the body can be photographed and recorded and checked with sensors; to include cosmic energy transducers that transit and reflect cosmic energy through responsive and nonresponsive tissue with controlled polarities; to include pendulum galvanometers which are applied to the body with metal transducers to outline dead tissue or tumor tissue which does not conduct as readily as healthy tissue; to include the use of Crane's projection microscopes for the identification of virus by their own refractive colors where as an example cancer virus is purple-red; a transducer of the ray tube type to include within the glass envelope a series of flat mirrored surfaces extending from the center of the tube to a slight angle on each side with a coiled or straight wire in front which uses positive polarity to excite the electrons which are reflected forward by the angular flat mirrored surfaces which are connected to and constitute the negative pole of the circuit for the ray tube as illustrated and described herein; use of fluorescent, phosphorescent and luminescent materials in combination with helium gas at approximately 14 mm of mercury pressure or other rare gases to excite the electrons for the attraction and concentration of audio frequencies and cosmic and electromagnetic energy levels to aid in controlling pollution and pathogenic diseases and the application therewith of direct or alternating currents applied therefor; a means to use metal plates on a slide under any standard microscope so that any virus, bacteria, micro-worm or other living organism can be observed to succumb when electrocuted by frequency instrument frequencies or direct current applied energy when each plate is connected, one plate to positive and one plate to negative current source; a centrifugal separator

of the continuous flow type to separate water from heavier solids in water such as paper pulp from paper pulp mills, such a separator to have dual or multiple gravity type recovery ducts which can operate from any angle or position by a power driven source and having a gravity or pump driven supply of polluted water or other liquid to be centrifugally separated to varying degrees of efficiency depending on speed of rotation and duct locations substantially as illustrated; a direct type frequency instrument having transducers applied to the human body or other applications where the transducer comprises metal or conductive materials or chemicals such as electrolyte solutions of sodium or potassium and the like and also a dual transducer of which a single one is illustrated and described having a conductive enclosure separated by an insulator with electromagnetic or magnetized magnets acting through a square or round coil of wire attached to the top and bottom conductive plates and energized by Frequency Instrument of the direct type and including cosmic energy attractor material, such kelp ground and dried, all of which comprises an energy source for completing the circuit with a human patient or other animal and related applications for an improvement in pollution control; a means and method of providing parallel wires for treating chickens and the like so that each wire is plus or minus in polarity and insulated for frequency instrument connection; that the foregoing frequency instruments and energy forms to control and stop pollution have been thoroughly tested and have been proven to be a most economical performance advantage and means to eliminate cancer, internal infections, heart trouble, tuberculosis, venereal diseases, all kinds of fevers, and all types of pathogenic diseases and ailments currently a plague to persons, animals, crops, fowl, and fish throughout the country.

Fig. 1.

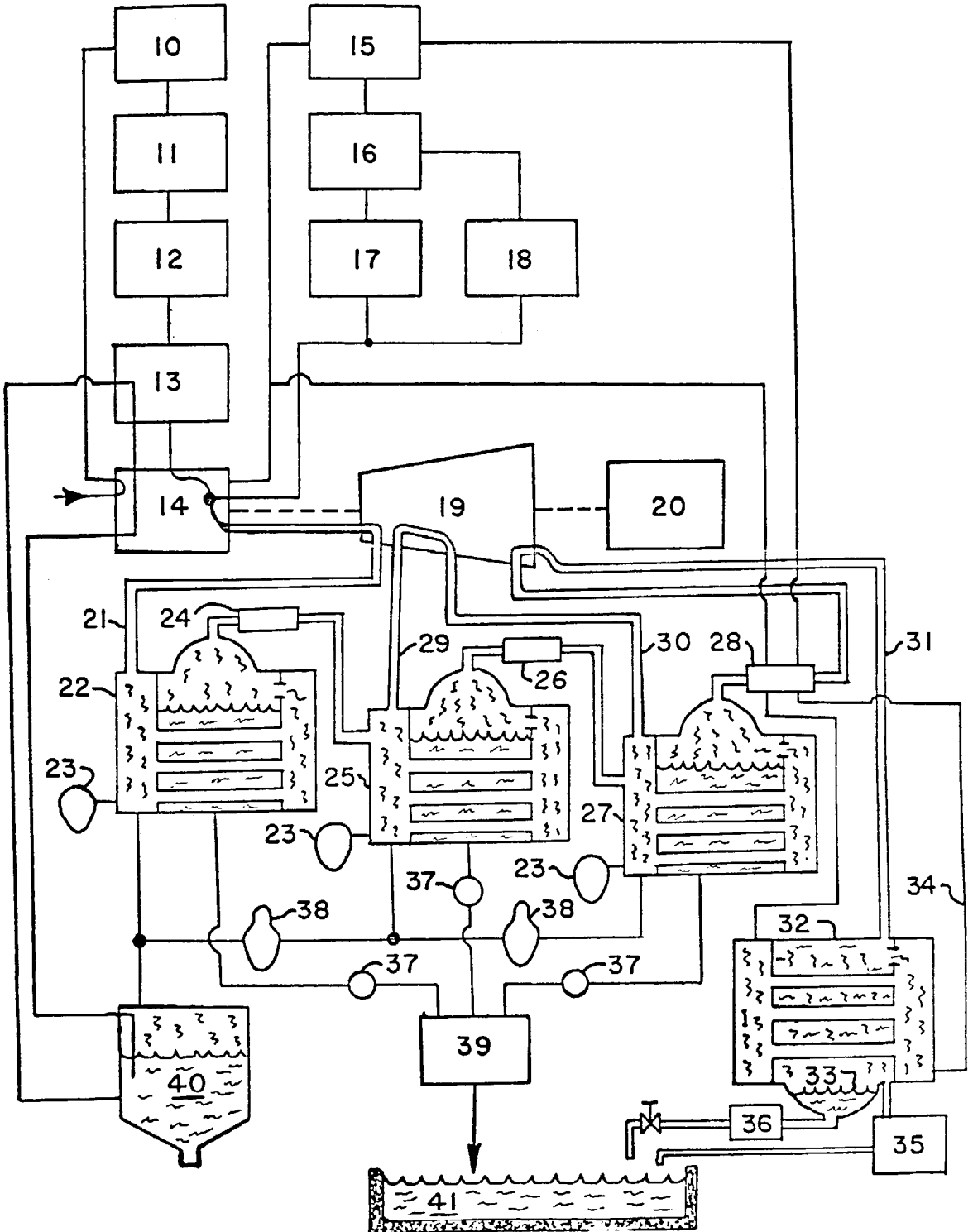


Fig. 1a.

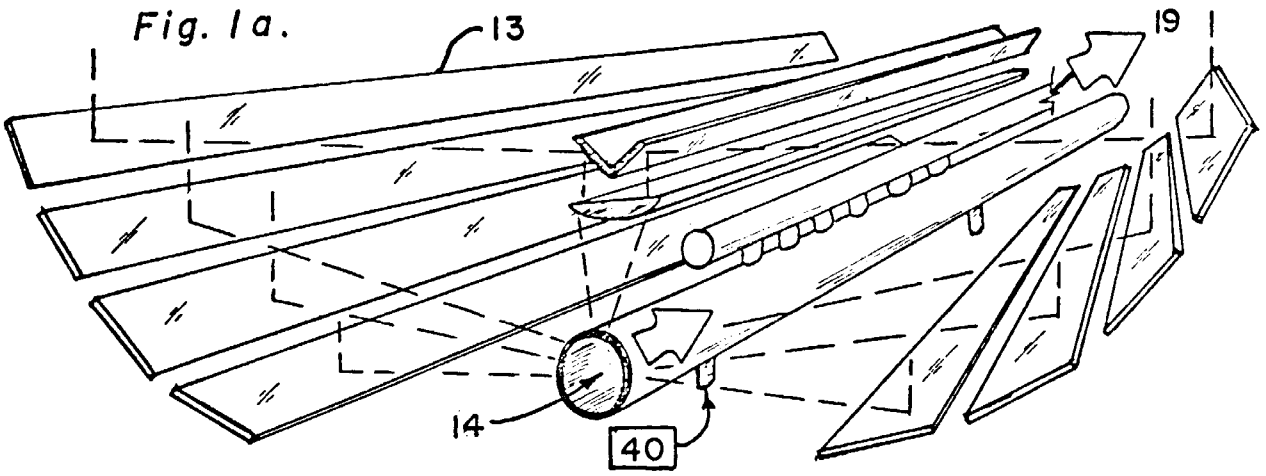


Fig. 1b.

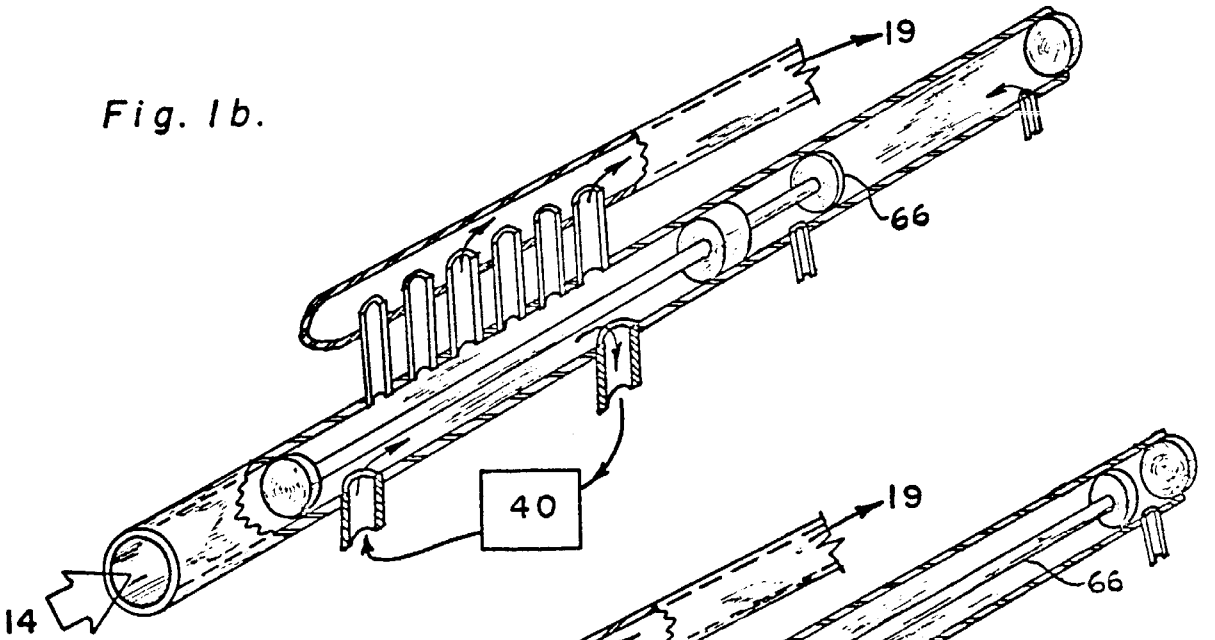


Fig. 1c.

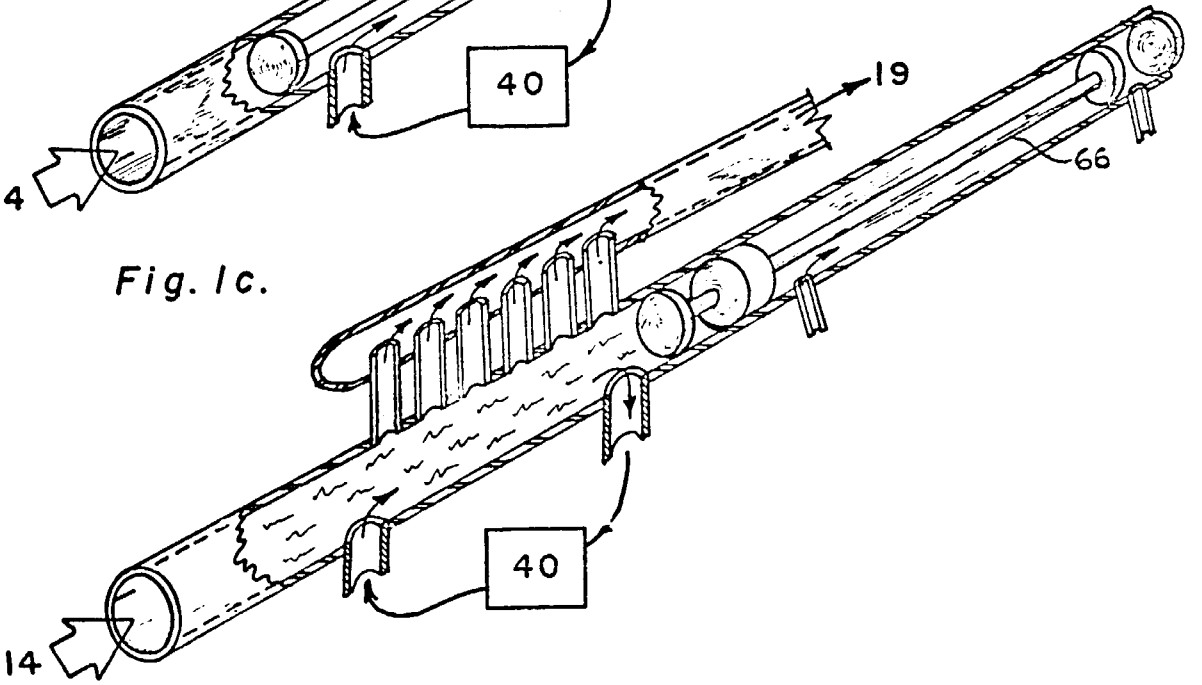
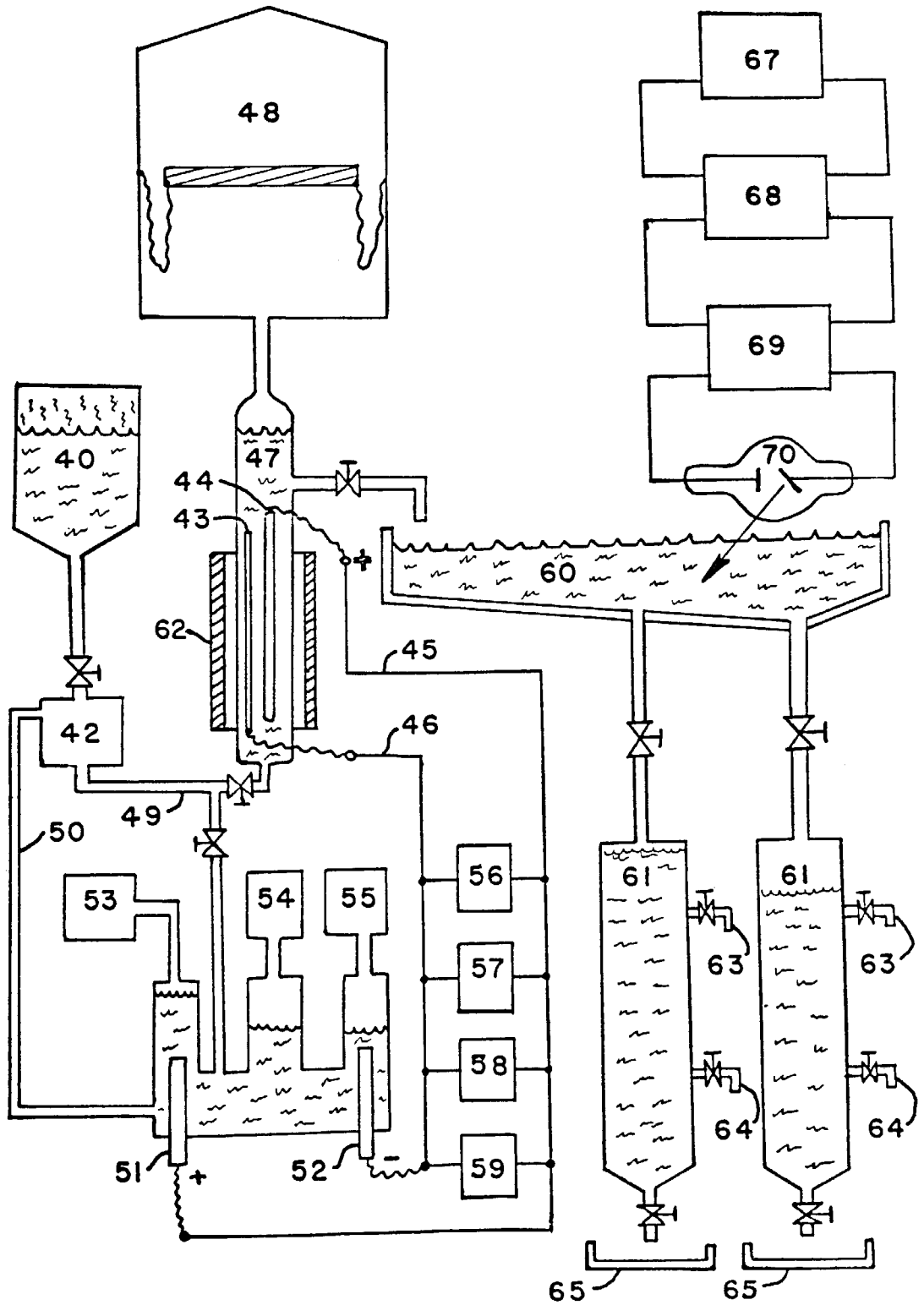


Fig. 2.



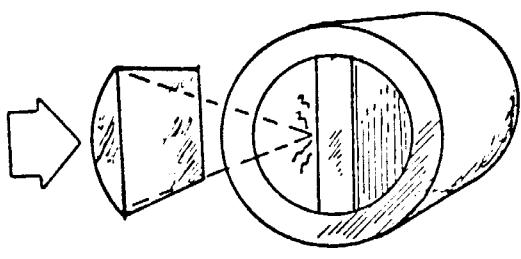


Fig. 3.

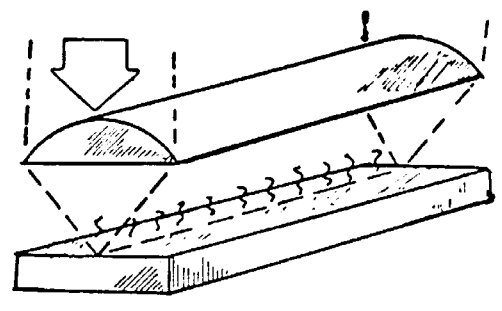


Fig. 4.

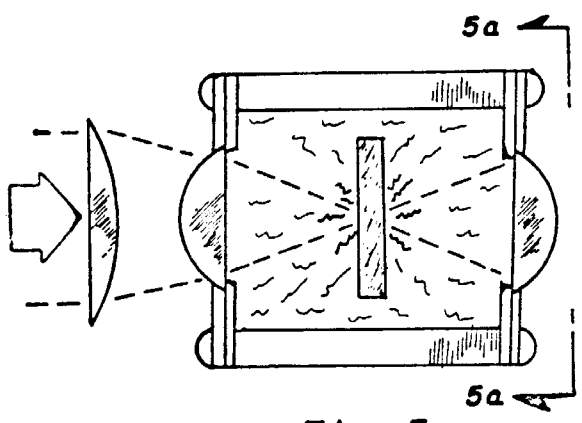


Fig. 5.

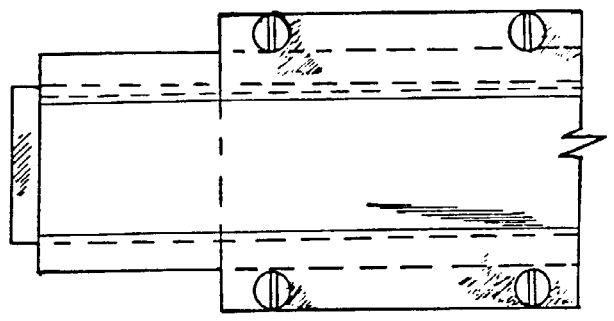


Fig. 5a.

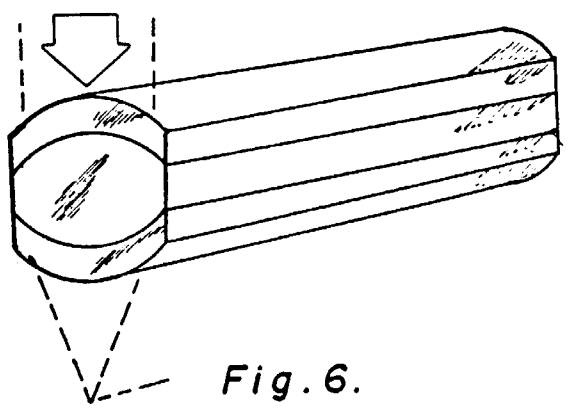


Fig. 6.

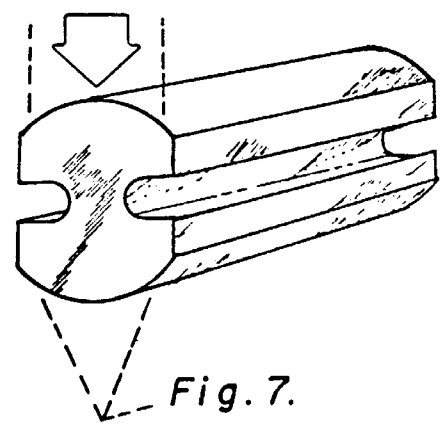


Fig. 7.

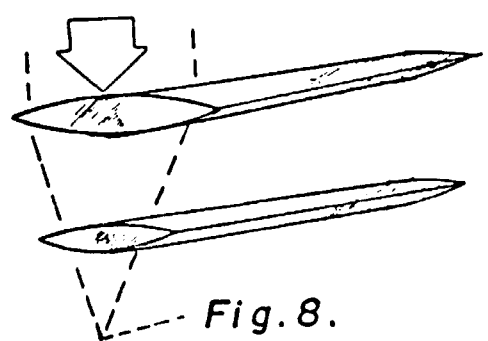


Fig. 8.

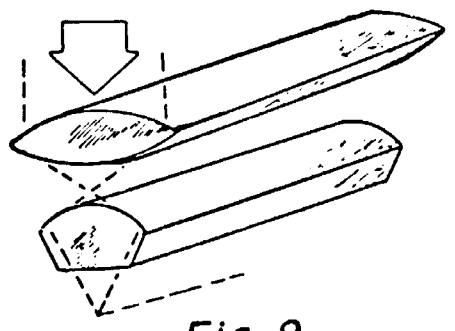


Fig. 9.

Fig. 10.

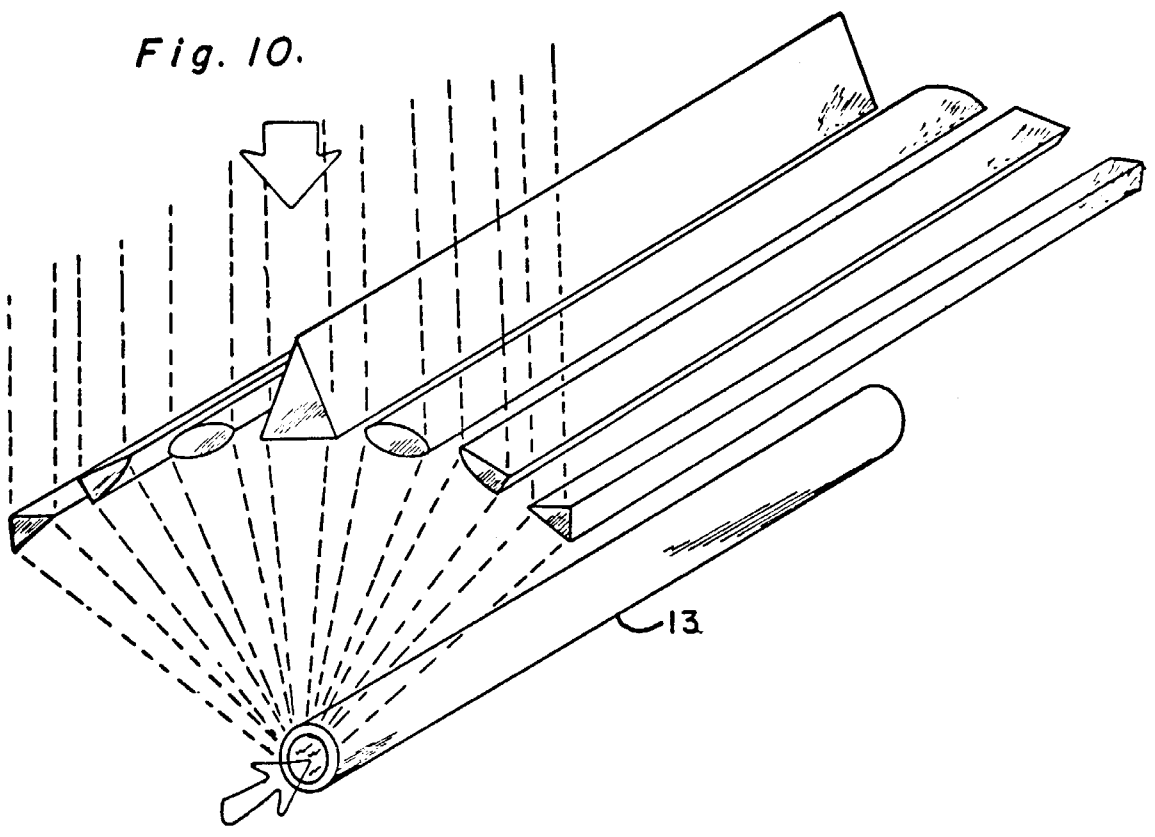
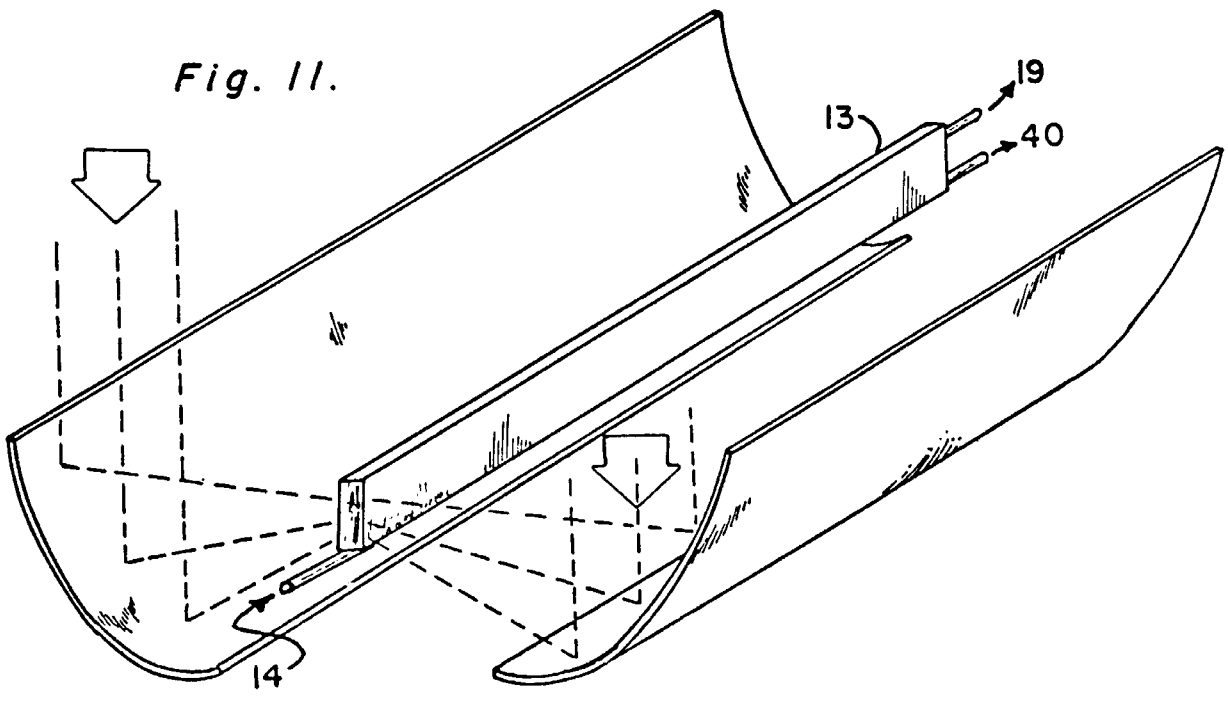


Fig. 11.



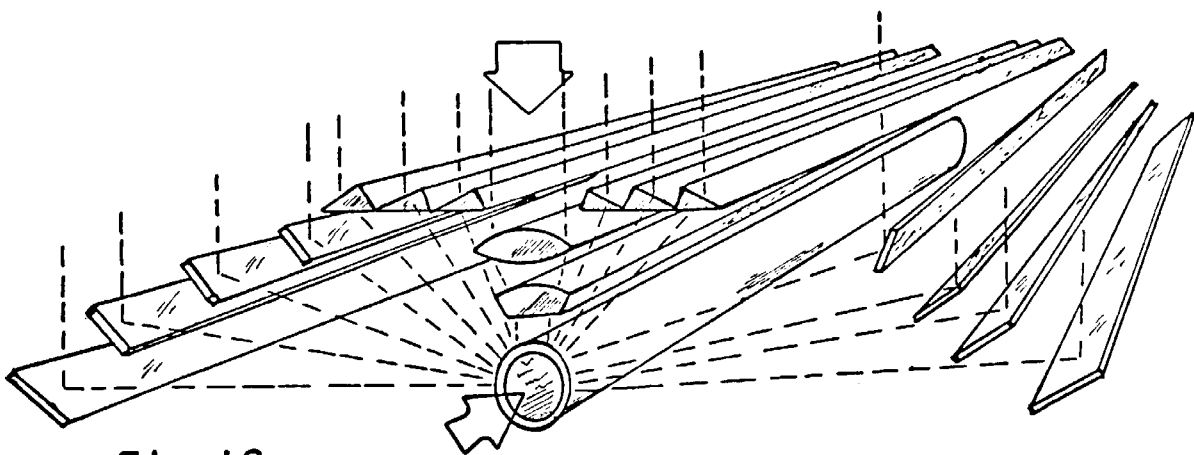


Fig. 12.

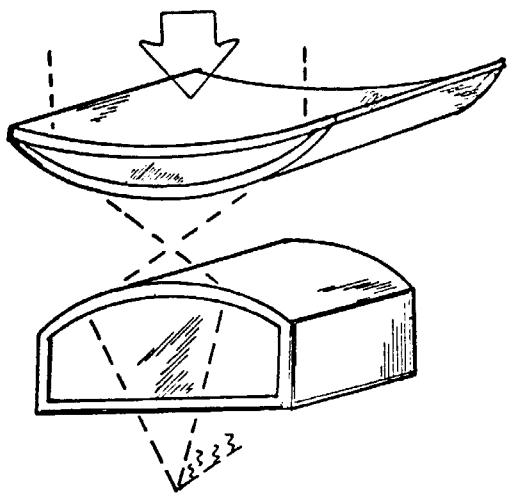


Fig. 13.

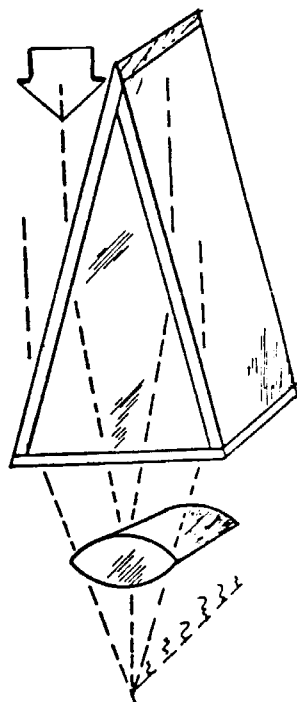


Fig. 14.

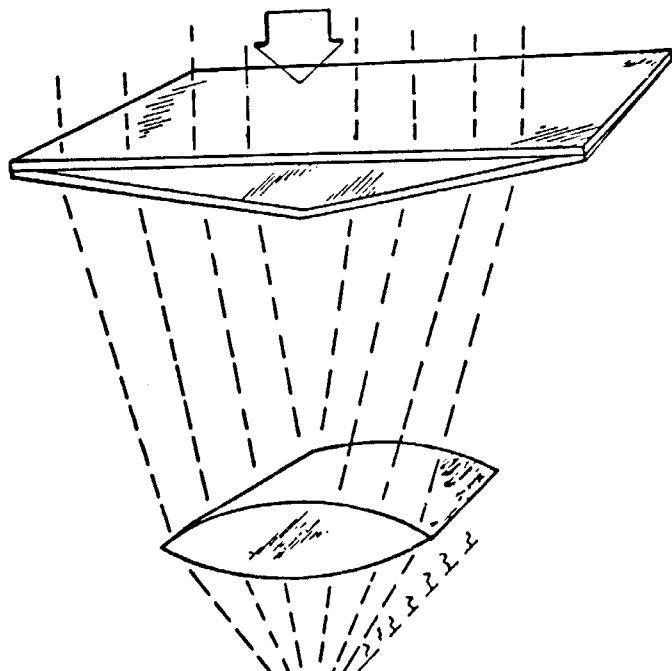




Fig. 16.

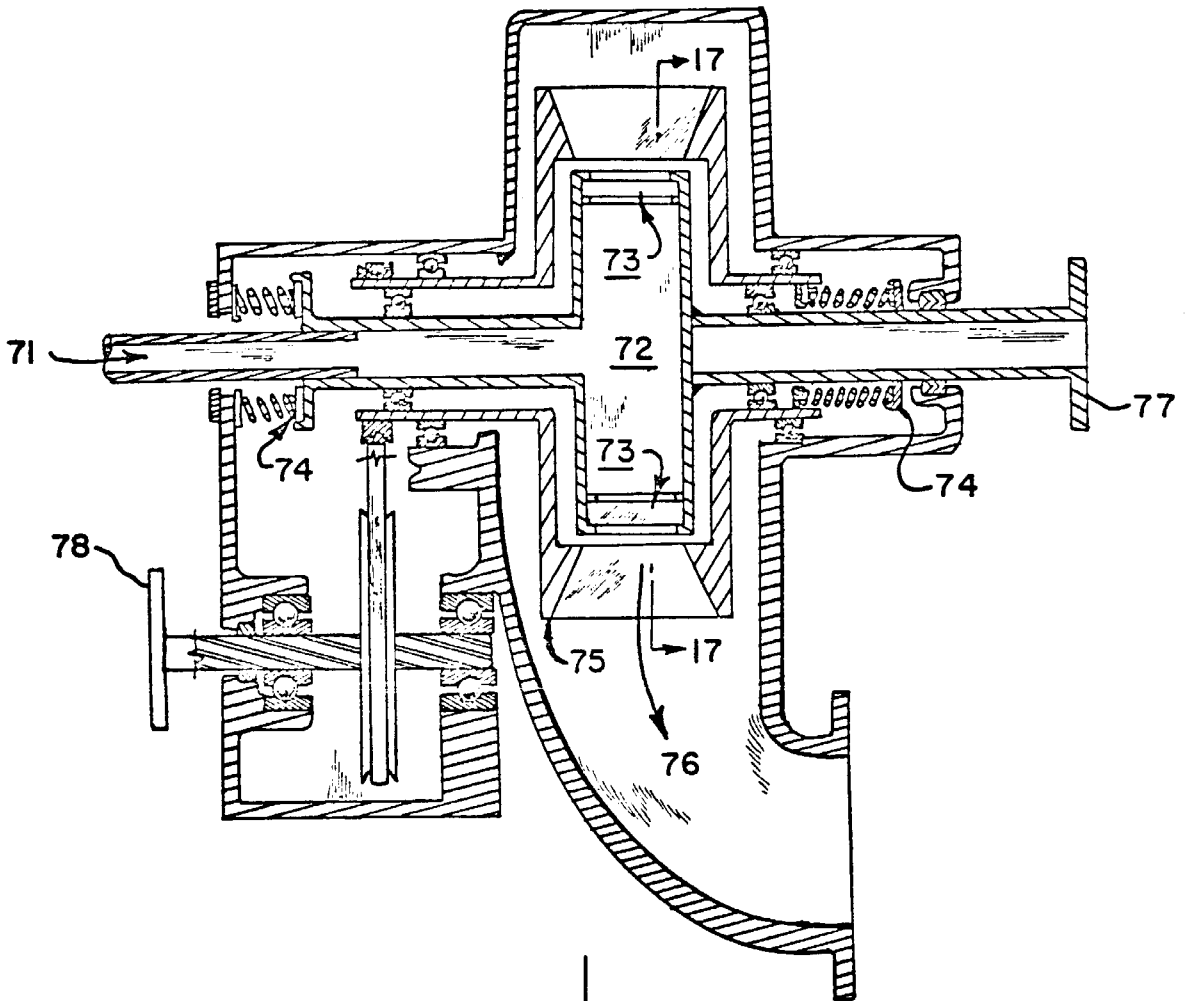
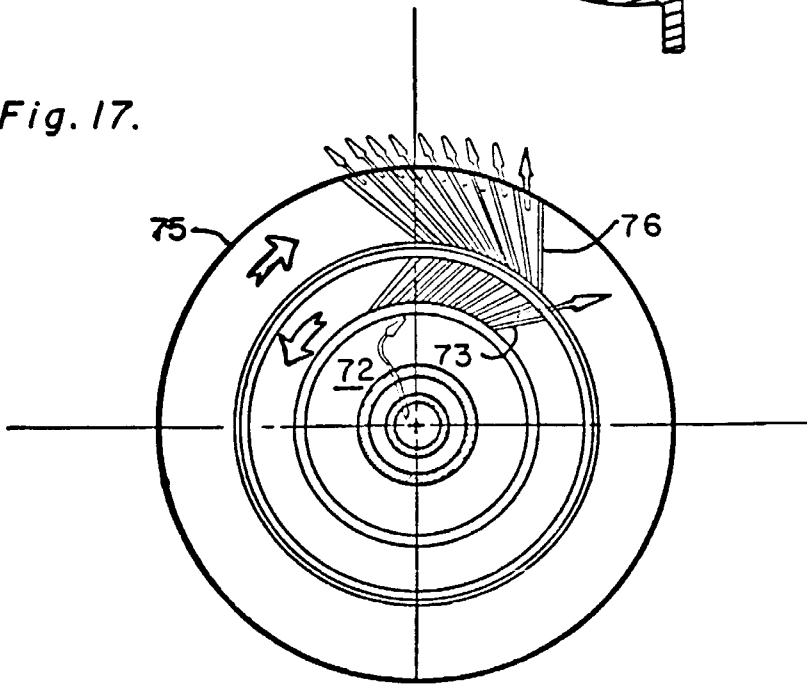


Fig. 17.



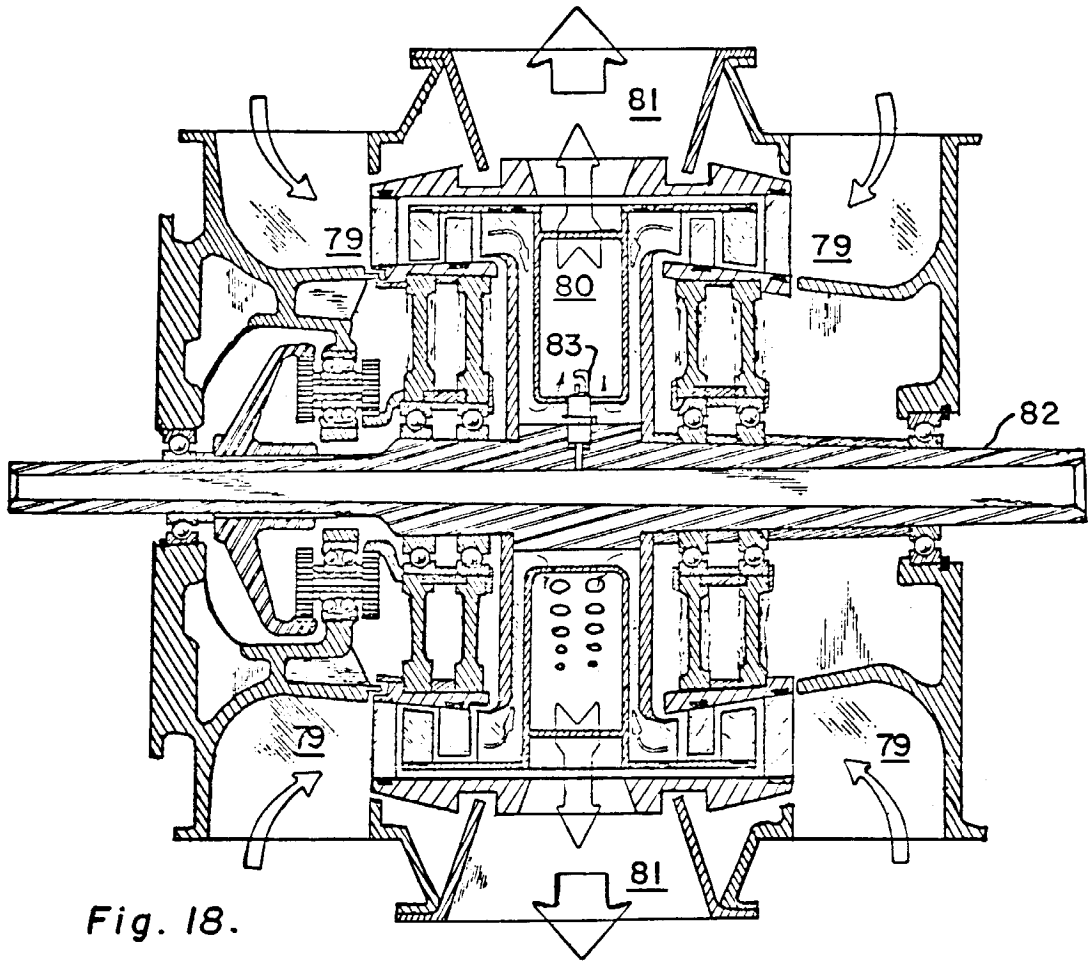


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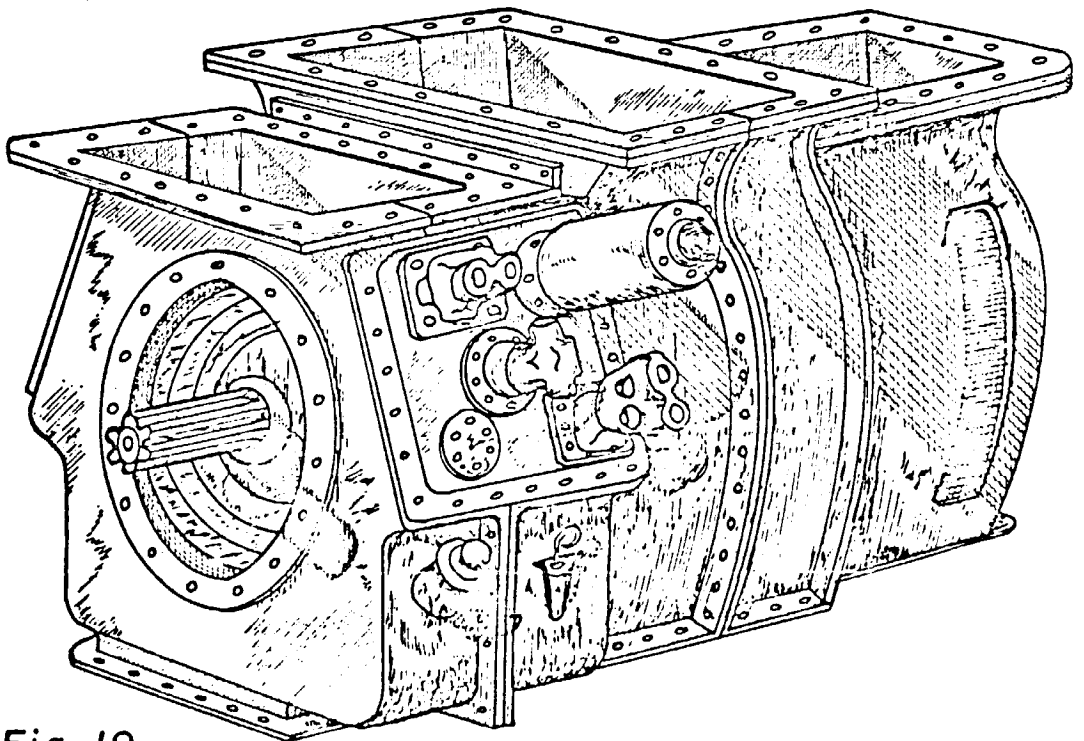


Fig. 19.

Fig. 20.

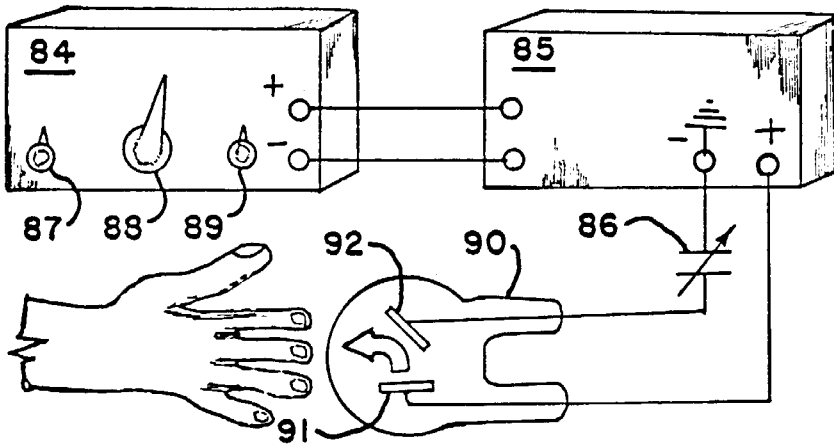


Fig. 21.

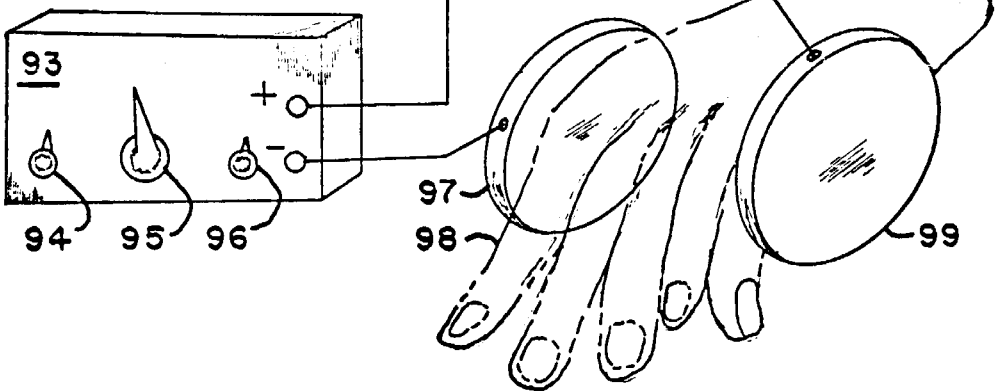


Fig. 22.

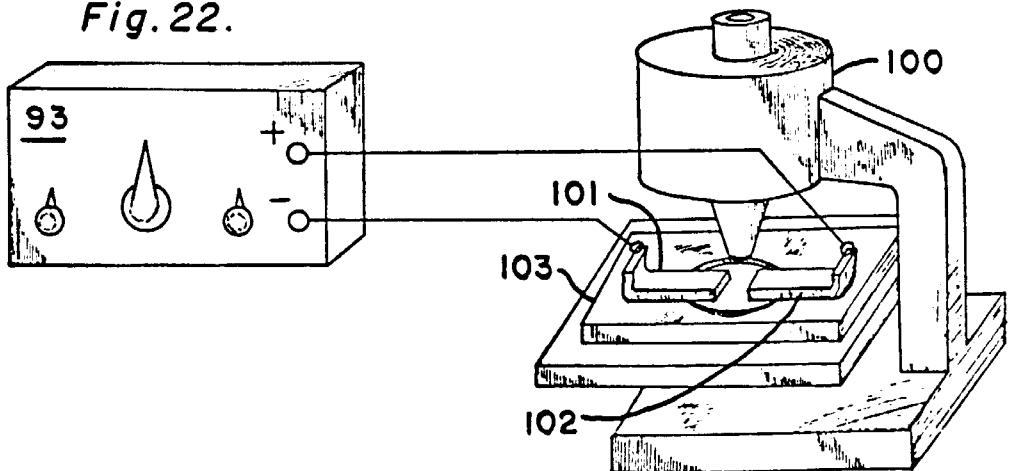


Fig. 23.

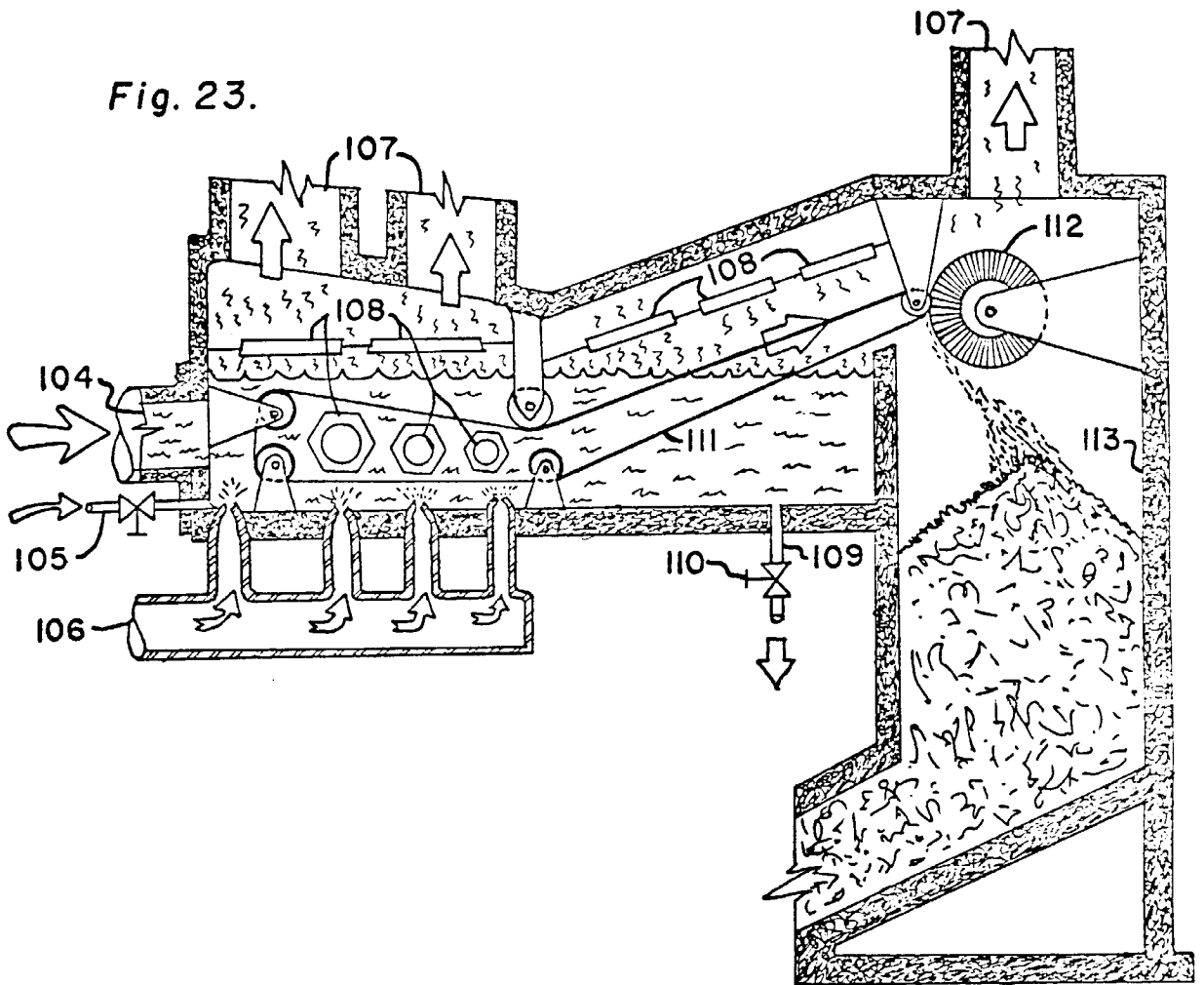


Fig. 24.

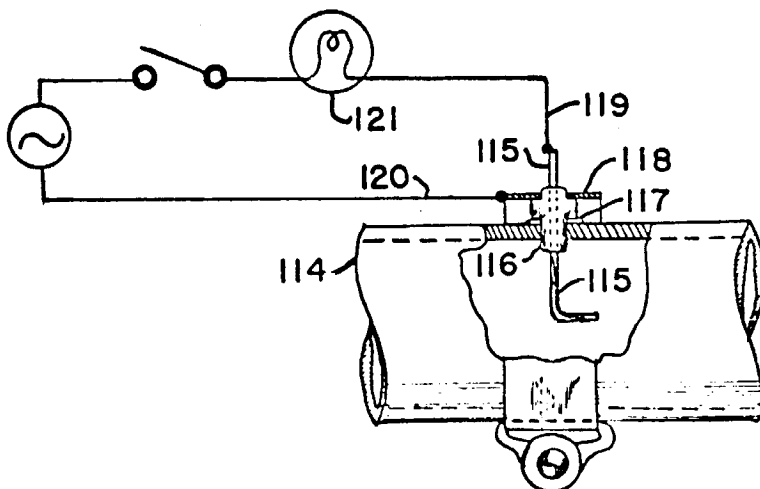


Fig. 26.

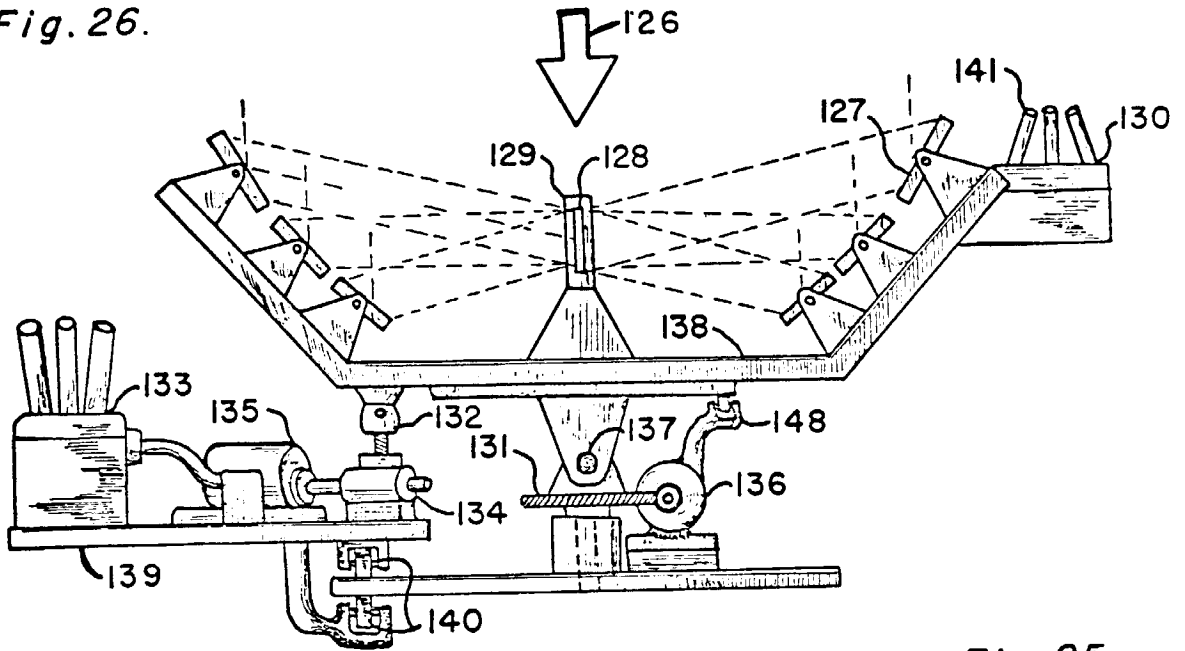


Fig. 25.

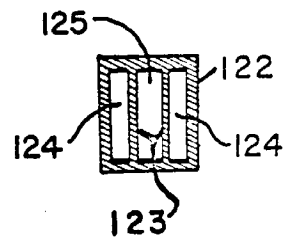


Fig. 27.

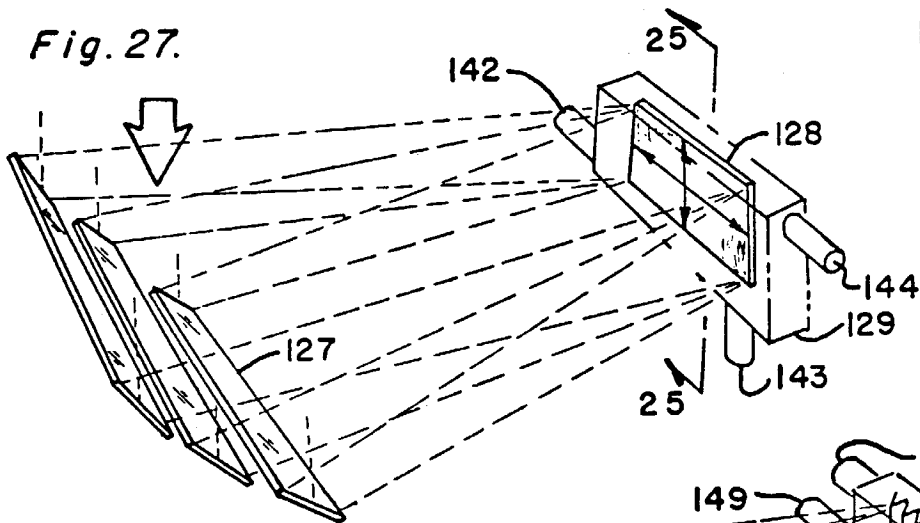


Fig. 28.

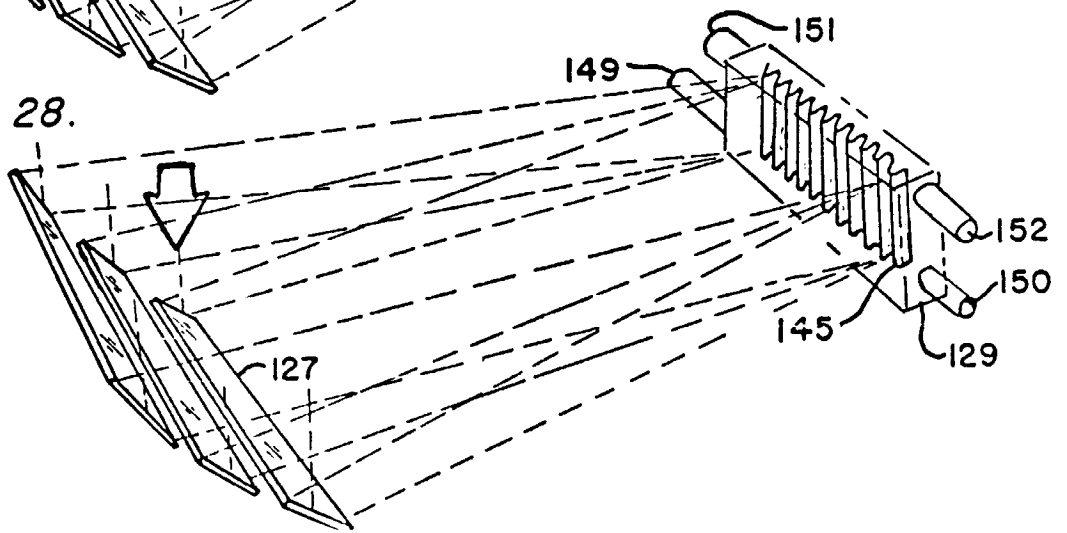


Fig. 29.

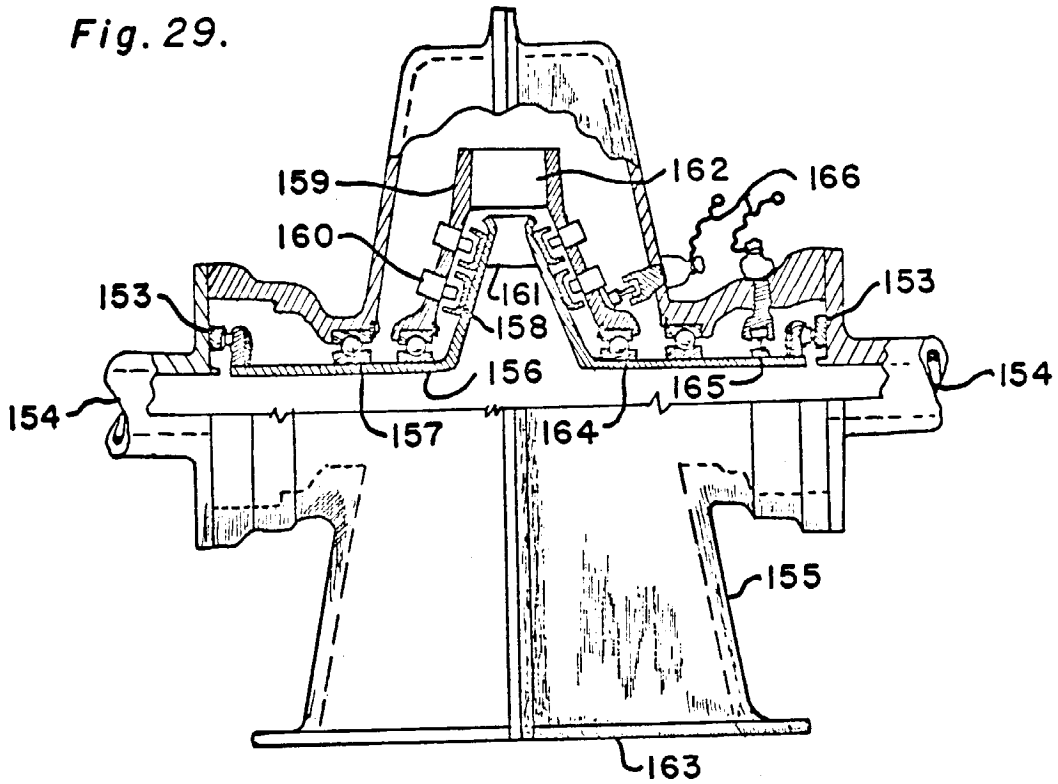


Fig. 30.

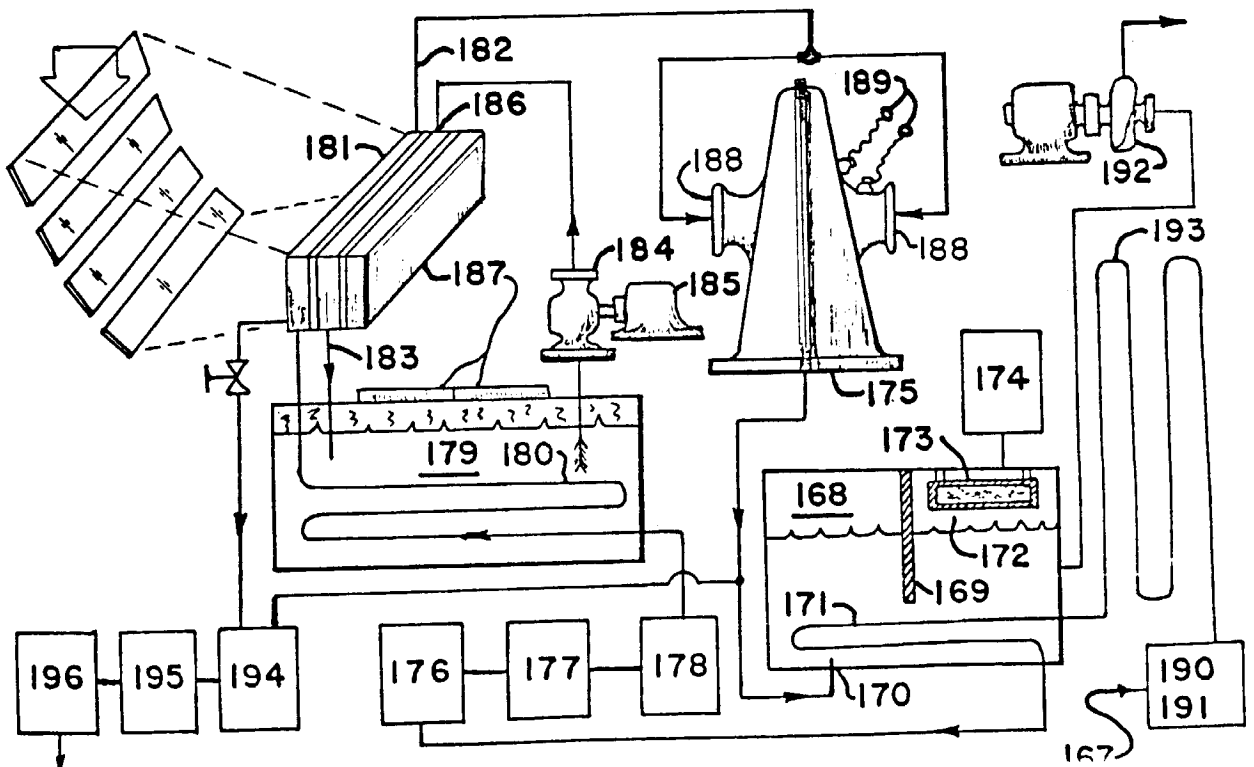


Fig. 31.

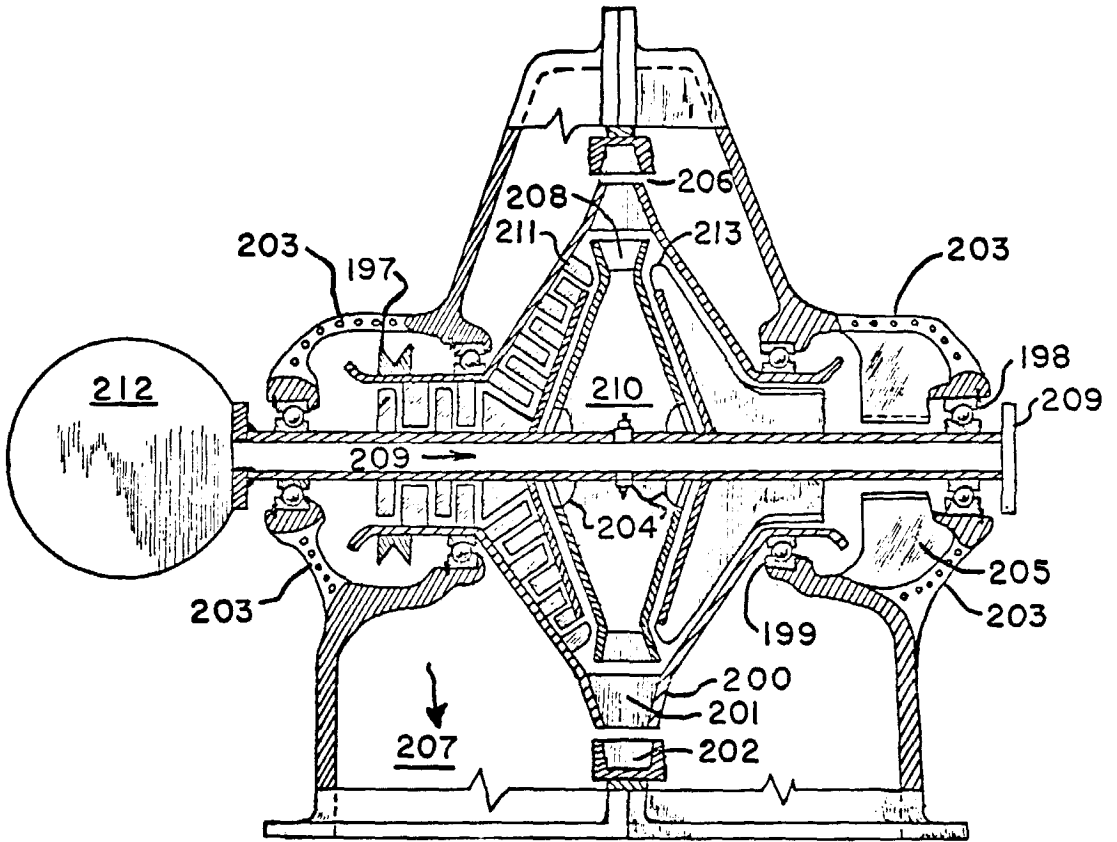


Fig. 32

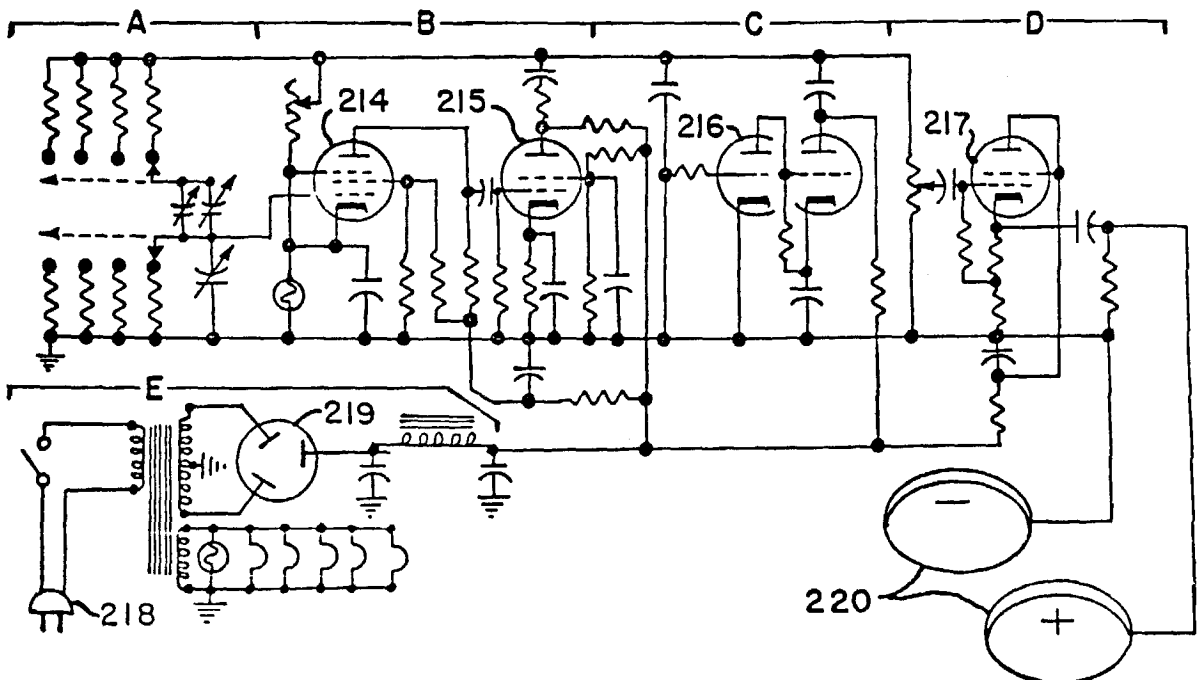


Fig. 33.

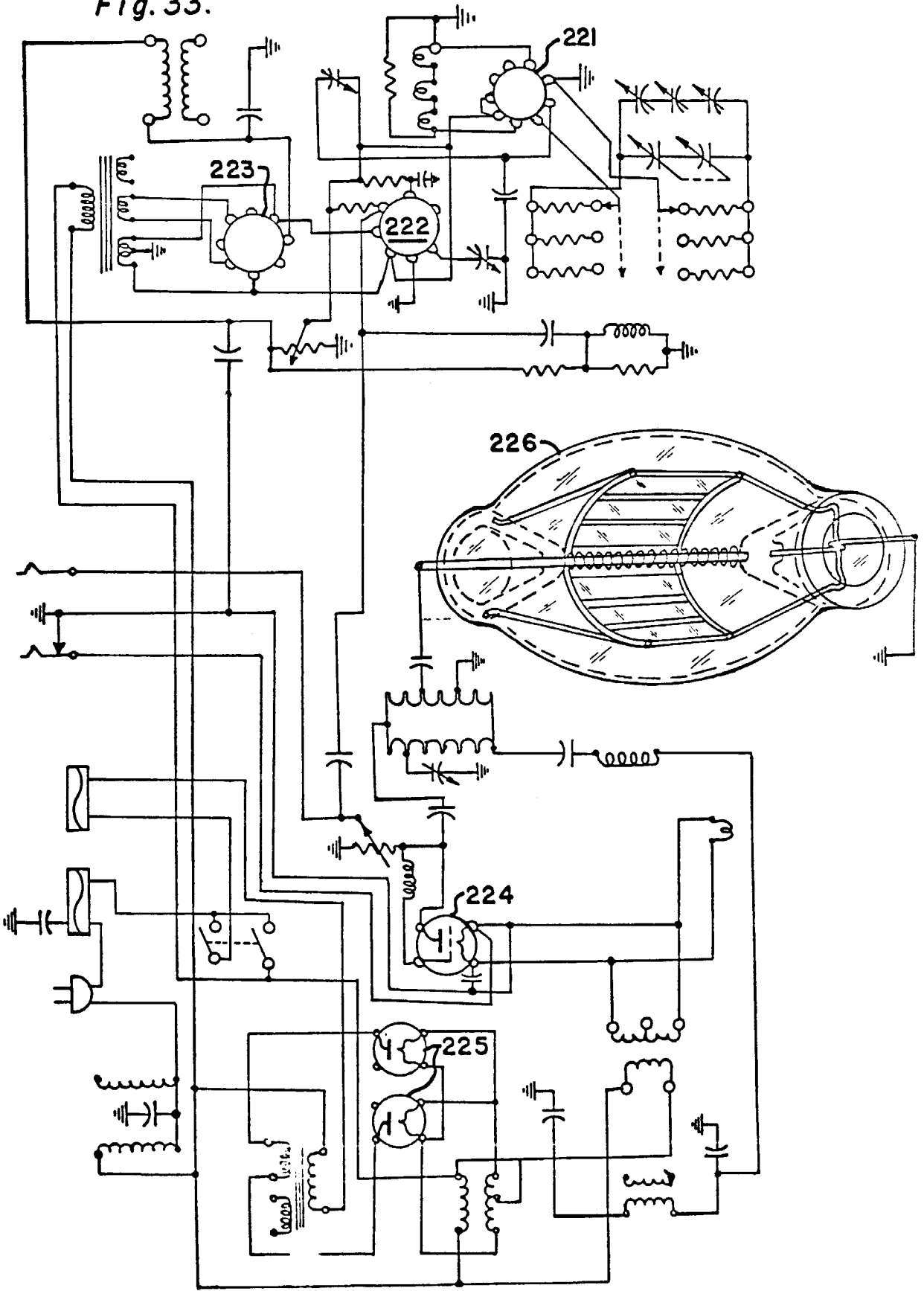




Fig. 34.

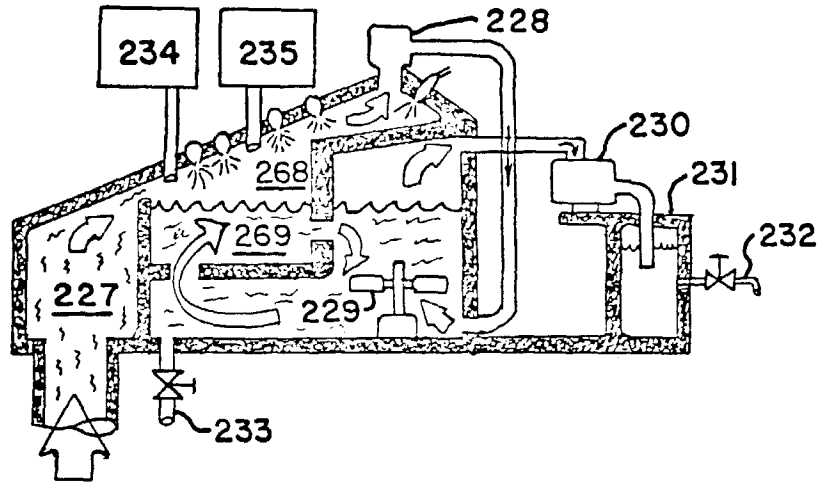


Fig. 35.

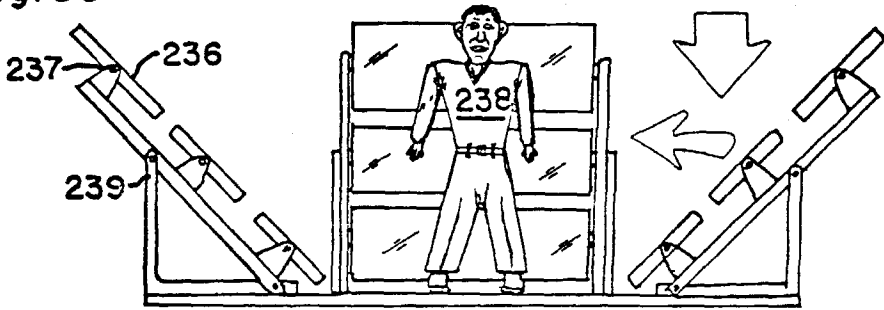


Fig. 37.

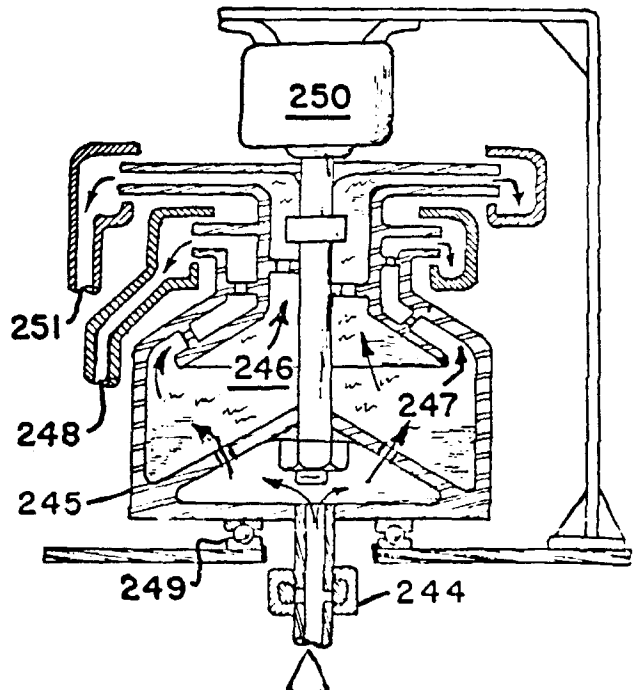


Fig. 36

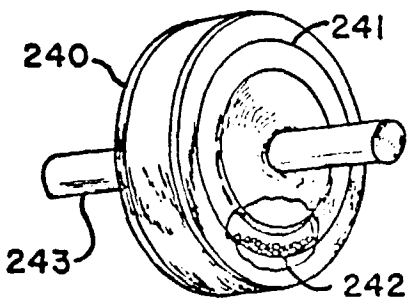


Fig. 38.

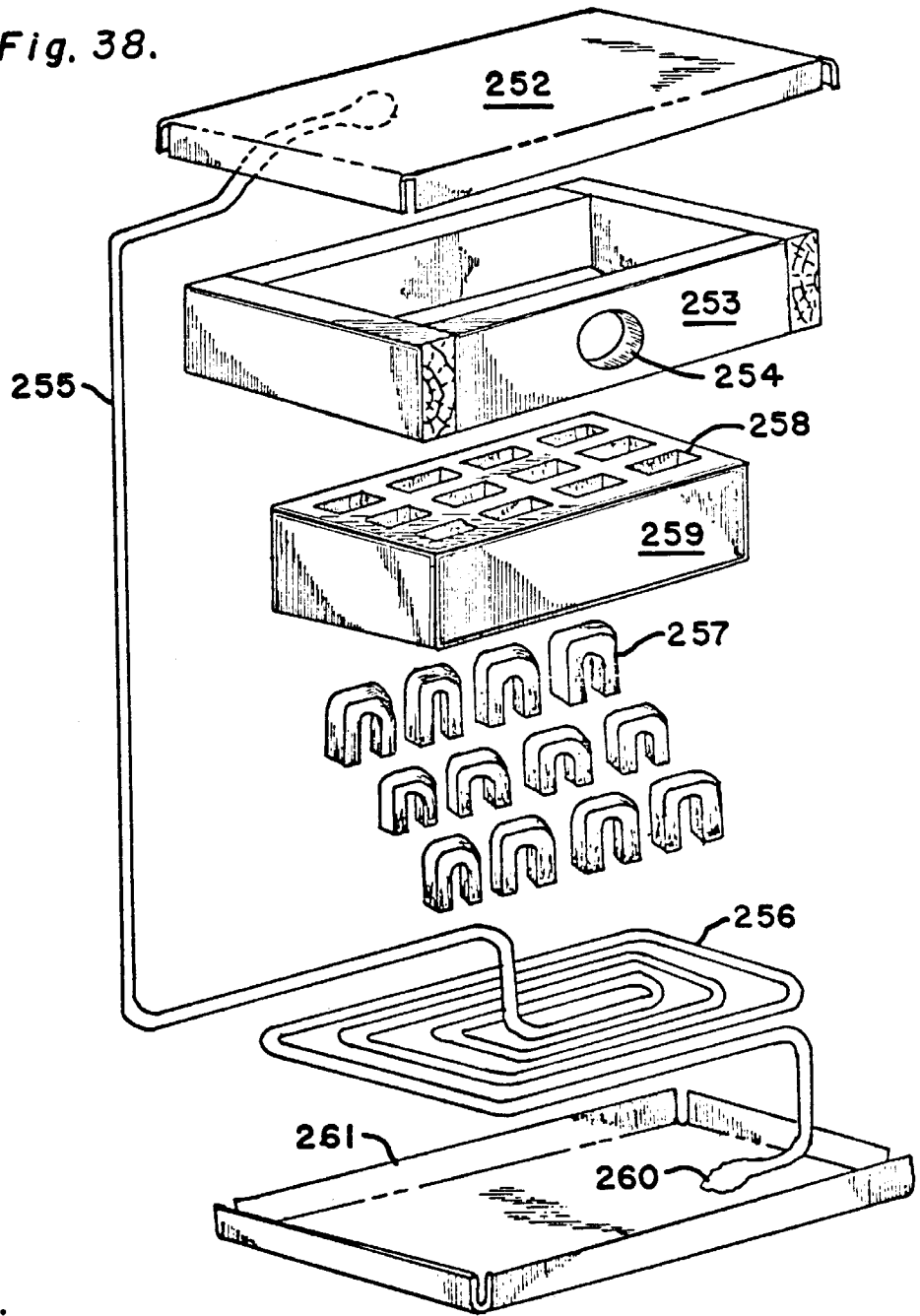


Fig. 39.

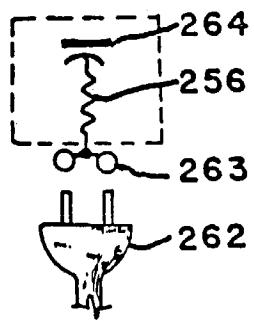


Fig. 40.

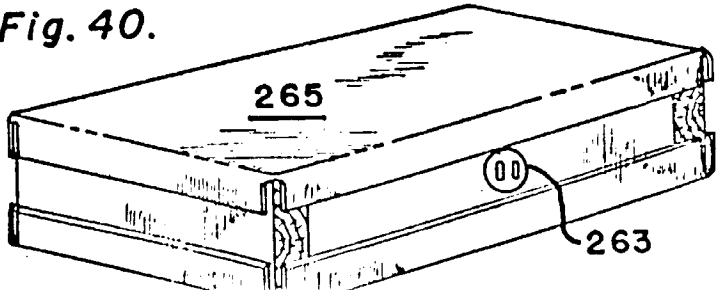


Fig. 41.

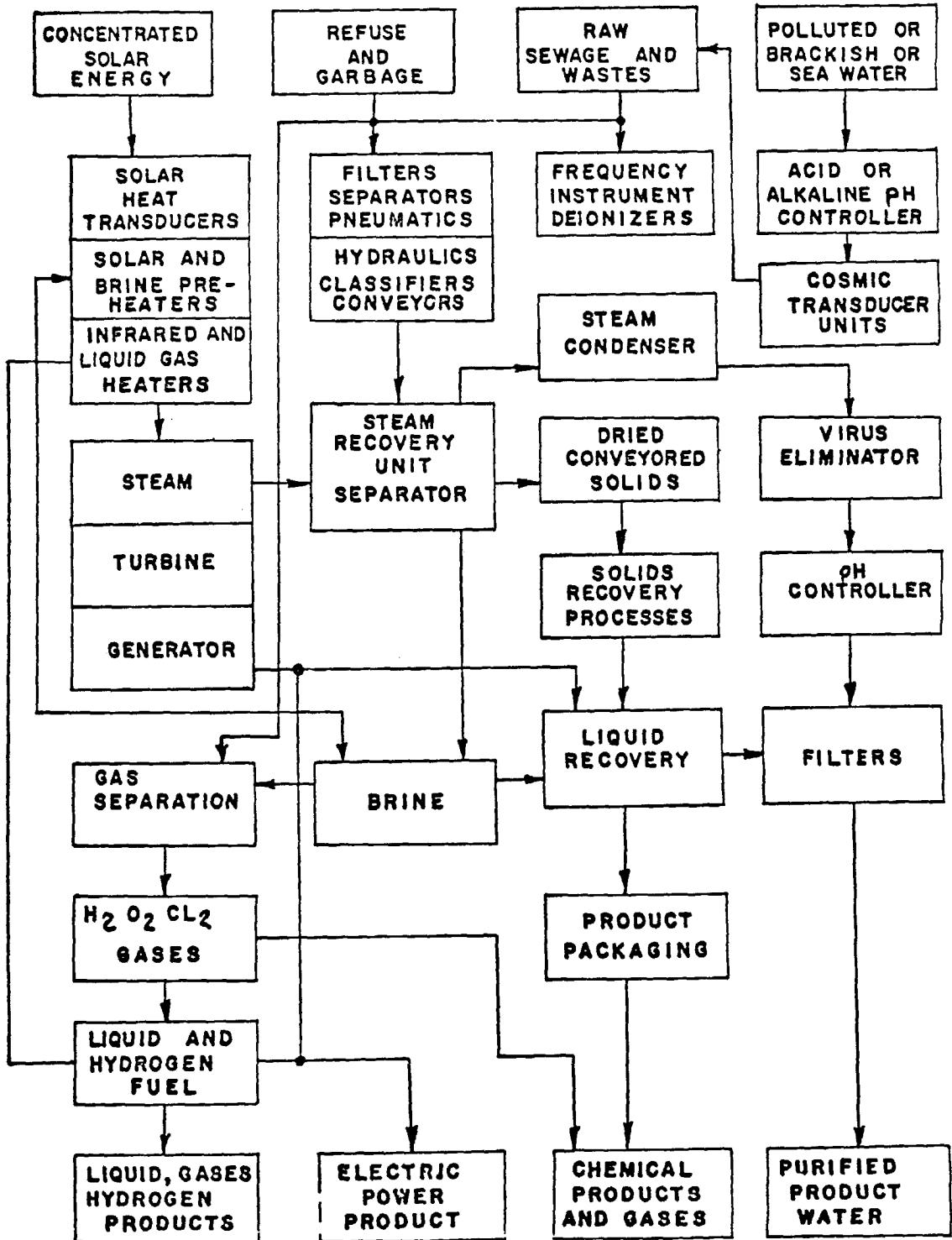


Fig. 42.

