



(12) **DEMANDE DE BREVET CANADIEN
CANADIAN PATENT APPLICATION**

(13) **A1**

(22) Date de dépôt/Filing Date: 2016/10/12

(41) Mise à la disp. pub./Open to Public Insp.: 2018/04/12

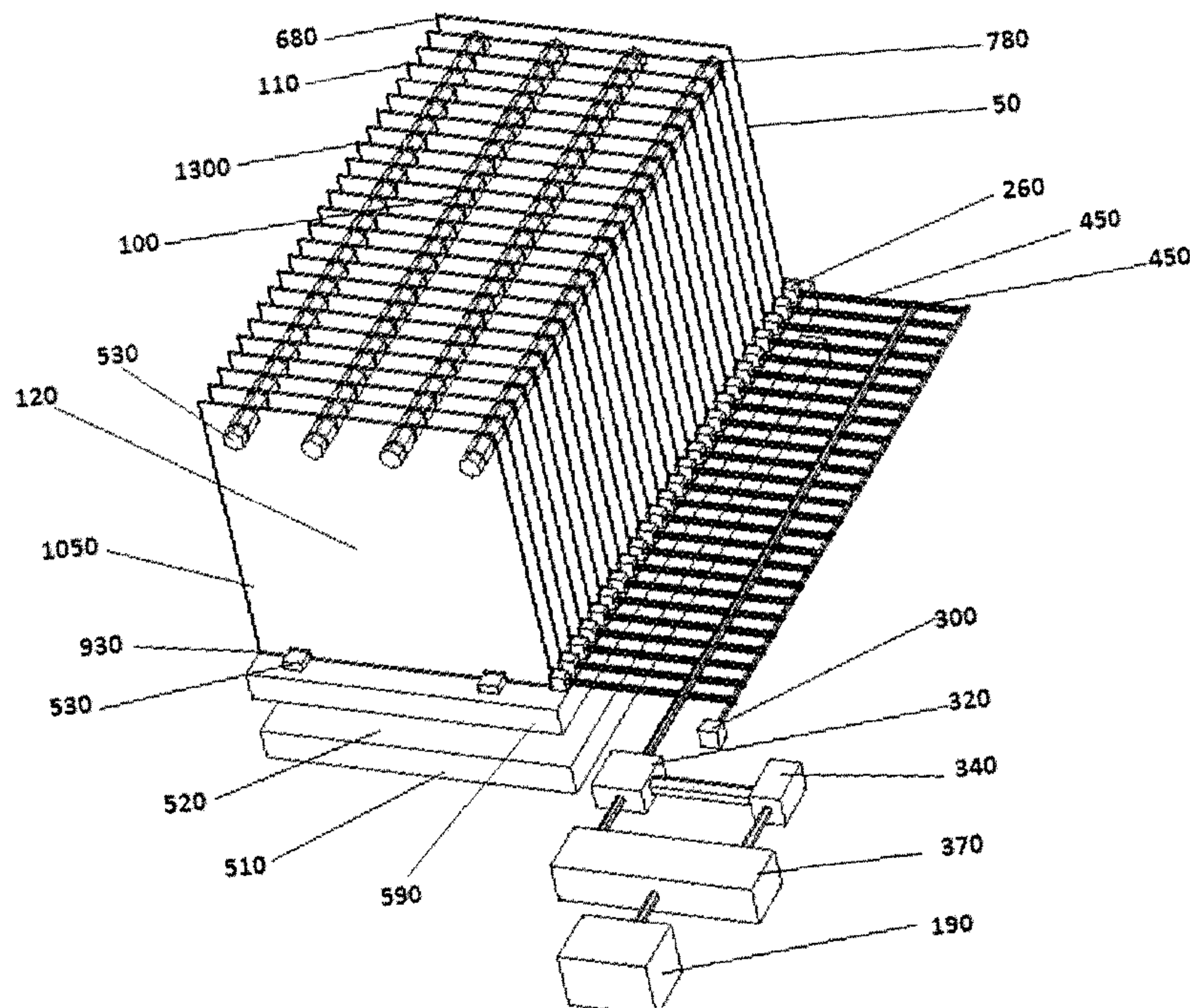
(51) Cl.Int./Int.Cl. *H02N 99/00* (2006.01),
H05F 7/00 (2006.01)

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(54) Titre : UN SYSTEME ET UNE METHODE SERVANT A UTILISER LA SURFACE VOLUMETRIQUE UTILE D'UN DISPOSITIF DE COLLECTE OU D'UNE STRUCTURE DE SUPPORT AFIN DE COLLECTER L'ENERGIE
(54) Title: A SYSTEM AND METHOD FOR UTILIZING THE USEFUL VOLUMETRIC SURFACE AREA OF A COLLECTION DEVICE OR SUPPORT STRUCTURE FOR COLLECTING ENERGY



(57) Abrégé/Abstract:

A method of energy collection that uses conductive materials, and structures, to greatly increase the surface area of a collection device, by interlocking it with conductive or charge carrier elements, in a volumetric way, and creating structures within the

(57) **Abrégé(suite)/Abstract(continued):**

volumetric area that can interlock with conductive or charge carrier elements, so as to maximize the interlocked surface area of elements and a device, for greater energy collection by means of electromagnetic diffusion, for storing or use with a load, and a system that can harvest these charges in a calculable, feasibly constructible, and with a greatly increased charge collecting ability, at any elevation in the atmosphere, or other.

Abstract

A method of energy collection that uses conductive materials, and structures, to greatly increase the surface area of a collection device, by interlocking it with conductive or charge carrier elements, in a volumetric way, and creating structures within the volumetric area that can interlock with conductive or charge carrier elements, so as to maximize the interlocked surface area of elements and a device, for greater energy collection by means of electromagnetic diffusion, for storing or use with a load, and a system that can harvest these charges in a calculable, feasibly constructible, and with a greatly increased charge collecting ability, at any elevation in the atmosphere, or other.

TITLE OF THE INVENTION

A system and method for utilizing the useful volumetric surface area of a collection device
or support structure for collecting energy

TECHNICAL FIELD

5 The present disclosure is generally related to energy and, more particularly, is related to systems and methods for collecting energy, for storage, or use with a load.

BACKGROUND

The concept of harvesting energy from the atmosphere was first pioneered in the early 1900's. Since this time, generation after generation has sought to make this technology a reality. It has been intensely studied
10 for more than a century with varying level of results but with one common conclusion to this date, and that is; that this technology has not been proven to be commercially viable.

Those skilled in the art have focused on the obvious results attained by the potential difference in voltage that increases linearly with distance from the Earth's surface to the ionosphere and upper atmosphere. The patents issued and the inventions claimed consists of soaring exorbitant structures, high reaching sky-
15 scraping aerals such as (tethered balloons, towers, suspensions over valleys, masts, ect.) and other far-fetched and implausible if not completely impossible designs and ideas. Many of these spectacular designs are inherently flawed, and the inventors failed to grasp the engineering and cost requirement challenges associated with creating structures that reach so high into the atmosphere.

Though this art has yet to be fully studied those skilled in the art have been able to clearly demonstrate that
20 there are large quantities of usable energy available in the atmosphere, even though they have not been able to realize a means to collect sufficient quantities. Where this usable energy comes from is still yet to be fully understood and hypothesis include theories of decaying radon atom's that create ion pairs as they decay, man-made activities such as current electrical infrastructure "leakage", solar particles emitted from our Sun, current theories of dark energy, and dark matter, and Einstein's theory of the cosmological
25 constant of "Lambda". Even though it is not fully clear the exact origin of this potential energy source, it is clear that there is a need for a method or apparatus that can harvest this energy efficiently, that can be engineered effectively, and that enough energy can be harvested to make it commercially viable.

Summary

Therefore a heretofore, unaddressed need exists in the industry to address the aforementioned deficiencies and inadequacies.

For the reader to gain a clearer understanding of the invention and where the discovery fits into the art and the improvements thereof, great detail has been given to the theory that led to the invention.

The concept of harvesting atmospheric electricity, static charge, and the voltage potentials thereof, are well known and have been studied intensely over the last century. Different methods to harvest this energy in a useful usable manner to this date have proven to have no commercial success. Voltage potentials have been studied and reflect that as you increase in height linearly, from the surface of the earth, to the upper atmosphere, potentials can reach hundreds of thousands of volts. Voltage potentials are just that, potentials, even though they can result in transferring a charge, this charge is an intense brief dissipation, and sustaining this charge has been the challenge for the last century.

Harvesting atmospheric energy concepts have been pursued continually over this century, the theory of harvesting this energy mostly centres around the concept that tiny particles or radiations are bombarding the atmosphere continuously. In order to harvest these particles a conductive surface must be placed in the atmosphere to collect these particles, and that the height and surface area of the conductor in the atmosphere effects the time it takes to gain enough charge to be released, and in the process do usable work. Even the most current developments in the art still focus around this theory by deploying microscopic fibers on a structure erected into the atmosphere, and the more fibers and the higher they are supported will affect the amount of charge able to be gained. With these devices current theories believe that the charges are accumulated through what is called the triboelectric effect, also known as triboelectric charging, is a type of contact electrification in which certain materials become electrically charged after they come into frictional contact with a different material. And the theories believe that by having surfaces, or fibers, or other elevated structures that can cause this frictional contact with the atmosphere, that they will be able to gain enough charge to be practical, or commercially viable. As these concepts and theories continue to be investigated and studied it is still yet to be seen if any substantial success can come from them.

In order to understand this phenomenon, I've studied these concepts in the greatest detail, and have come to my own conclusions on where this charge may come from, and how it propagates through our atmosphere, the Earth and our Universe. I came to the conclusion that a vital piece of modern day physical

laws was incomplete, specifically to do with gravity, and the attractive forces thereof. Mathematically Newtons Law of Universal Gravitation is defined as; "a particle attracts every other particle in the universe using a force that is directly proportion to the product of their masses and inversely proportional to the square of the distance between them." Through experimentation, and conceptualization I have determined
5 that gravitation is not necessarily a product of their masses, but more a product of the "electromagnetic energy density" of those masses. With this concept I then embraced Einstein's theory of the Cosmological Constant, and the energy density of a vacuum in space, and focused on what this energy density could consist of in the physical form. My conclusion was that the cosmological constant or energy density of space had to be made up of tiny charged particles, often called dark energy, and that this energy had to come
10 from somewhere.

My hypotheses is then, that it must have came from black holes, as black holes were the only known force that could consume a star. Which led me to the belief that a black hole would then have the highest and most intense magnetic field that exists, this field would then take matter and energy and convert it to the tiniest particle with the most powerful electromagnetic electric charge. These charges would then be forced
15 apart in the black hole, and exit perpendicular to the event horizon northerly and southerly to create the energy density or cosmological constant of the universe. This cosmological constant is what therefore causes the universe to expand, and with this theory of expansion, it showed that these tiny particles with powerful electric charge are then not attracted to each other by their energy density, or their masses, they would therefore repel each other dependent upon their same polarity. This discovery and concept led me to
20 believe that the universe and more specifically our atmosphere is built on tiny particles of charge that are repelling each other, and that as they come into an area where opposite polarity charges exist, the charge density of that area becomes more neutralized, this is because the charges couple and gain mass, creating a potential difference or voltage potential between the two polarities, as observed in our atmosphere.

This concept and discovery help me formulate a means of extracting this energy, by realizing that charges
25 were forcing away from each other, but contained together because of the expansion reverse magnetic pressure, resulted in the electromagnetic energy density of that environment. This showed that you could provide a path for positive charges in a mainly positive environment to negative charges in a mainly negative environment, and the larger the path, and the lesser resistance would cause a great amount of current to flow.

30 Determining how to create the greatest path was the challenge in my next discovery, I discovered that the greater the surface area of a conducting sheet, including parallel or additional sheets the more charges

would flow, this was known, what was not known was that based on the concept that charges are compressed together, but repel each other, that if you create a continuous interlocking path for a charge carrying or conductive element such as oxygen, nitrogen and carbon dioxide in our atmosphere with the surface area of a conductor, you could greatly increase the charge collecting surface area using different structures and designs, for instance open cell structures. Then that determining that the amount of interlocking space required for the conductive or charge carrier element in the volumetric charge collecting area, is based on the charge density of the volumetric area that the collector is located in, as well as the resistance of the charge carrier or conductive element, and the resistance of the device and its components, together, is what determines the amount of space required for the conductive or charge carrier element, when interlocking with the conductive surface area in the volumetric energy collecting area. And by doing this you can harvest a great deal more charges in a much more compact area, and, you can harvest charges in any area, so long as you can define two areas with polarity, or charge density differentials.

And that rather than charges being harvested from the triboelectric effect that they could be harvested by electromagnetic diffusion, where as particles for instance of positive polarity then come into contact with a volumetrically arranged expanded surface area, and a continuous interlocking path for the charges to flow through into, and through the device, they create an area of less positive polarity charges, and thus lower charge density, and as the expansion reverse magnetic pressure of this area becomes weaker more positive polarity charges will migrate to this area, continuing the process that has shown to continue indefinitely. This is greatly beneficial as with in this method, conventional natural environmental forces such as wind, tidal, direct sun, geothermal, triboelectric are not required for energy harvesting, though they may add, in some instances, to energy production.

With this process it is possible to harvest charges in any environment so long as the energy density or polarity of the area is more biased, that either being positive or negative, or higher density and lower density, and that even an area with more neutralized polarity charges will still flow from an area with a more biased polarity into the more neutralized polarity area. So the amount of charges able to be harvested is directly dependent upon the overall electromagnetic density (reverse expansion magnetic pressure) of an area, polarity, and the volumetric surface area exposed to a charge carrying or conductive element.

So with these discoveries I then created a method that takes advantage of these concepts and properties to use conductive materials, and structures to greatly increase the surface area of a collection device. By continuously interlocking it with a conductive or charge carrier element, in a volumetric way, and creating structures within the volumetric area that can interlock with conductive or charge carrier elements, so as to

maximize the interlocked surface area of the element and device, for greater electromagnetic diffusion and to create a system that can harvest these charges in a calculable, feasibly constructible, and with a greatly increased charge harvesting ability.

With this method it is possible to harvest large amounts of power at any elevation, including next to the Earth's surface, making construction more feasible, in addition as elevation is increased and the charge polarity becomes more positive, and electromagnetic density increases, so too does the amount of charge accumulation increase for the same volumetric charge collecting surface area.

Figures and embodiments contained are to demonstrate possible variations and to give a clearer understanding of the theory and method herein, to allow one with ordinary skill in the art to gain the ability to re-create said method.

The terms used in this disclosure are not for limiting the inventive concept but for explaining the embodiments. The terms of a singular form may include plural forms unless otherwise specified. Also, the meaning of "include," "comprise," "including," or "comprising," specifies a property, a region, a fixed number, a step, a process, an element and/or a component but does not exclude other properties, regions, fixed numbers, steps, processes, elements and/or components. The reference numerals presented according to a sequence of explanations are not limited to the sequence.

In addition, some embodiments of the present disclosure may include patents or public disclosures already issued relating to this art, when used in conjunction with this system or method these prior schemes may be able to generate substantial amounts of usable power. By using the described system and method many of these previously failed schemes and inventions may be able to harvest enough continuous power to be potentially commercially viable, and when referring to these said inventions or schemes when combined with this disclosed system or method these devices should be considered new devices or improvements thereof and confer the protection of this disclosure, or future patent, this does not limit the scope of the present disclosure instead giving reference to where some embodiments of this discovery may fit into the art.

The present invention and disclosed embodiments provide methods for collecting energy utilizing the useful volumetric surface area of a collection device or support structure for collecting energy. In this regard one embodiment of such a method, as well as others, can be broadly summarized by the following steps:

A method for utilizing the useful volumetric surface area of a collection device or support structure for
 5 collecting energy comprising a structure composed of and using at least one of, microscopic, or not
 microscopic; open cells, or closed cells, or solid structures, lattice structure, or surfaces, segmented surface,
 segmented wire, electrically conductive metal, conductive gas, conductive particle, conductive particle
 suspended in liquid, matter, or gas, conductive paint, conductive sealant, conductive filament, non-metal
 conductive matter or non-conductive materials conductively plated, conductively coated, or impregnated
 10 with conductive material, to increase at least one collection device or support structures overall useful
 volumetric energy collecting surface area.

Consisting essentially of a device, in operation, with increased useful energy collecting surface area to
 volume ratio of the device or support structure, collecting surface area increased by arranging at least one
 of; the formation of materials, atoms, structures, surfaces or utilizing unused surfaces to create increased
 15 energy collecting surface area exposed to positive polarity charges within a volumetric area the volumetric
 energy collecting surface area encompassed in an area containing positive polarity charges, said volumetric
 energy collecting area not limited to any particular geometric shape, specific formation, configuration, or
 segmentation with a minimum size of 1 attometer in height by 1 attometer in length by 1 attometer in
 width, being a maximum size of 1 exameter in height by 1 exameter in length by 1 exameter in width, or any
 20 size or configuration within the minimum size up to the maximum size, said device or support structures
 useful volumetric energy collecting surfaces are electrically conductive, or non-conductive conductively
 covered, impregnated, or a conductive composition, useful volumetric energy collecting surfaces being, or
 not, electrically isolated from their support structure or other collection devices, the support structure
 comprising at least one of building, roof, wall, window, ceiling, window frame, gutter, frame, siding, building
 25 interior, insulation, drywall, fencing, furniture, flooring, door, ducting, drapes, building exterior, couch, desk,
 table, ottoman, shelving, bed, chair, carpet, wire, , clothing, electronic casing, electronic devise, electronic
 unit, rod, beam, particle, gas, liquid, sheet, foam, foam structure, mesh, human, vehicle, ducting, foil, array,
 expandable array, conductively 3d printed structure, airplane, helicopter, flying car, jet, rocket, spaceship,
 space station, satellite, living habitat, car, truck, van, motorcycle, dump truck, hauling truck, blimp,
 30 concrete, asphalt, flooring, roadway, bridge, overpass, runway, train yard, wind turbine, solar panel, cell
 tower, radio tower, sail, drilling rig, tower, mast, mobile building , platform, billboard, water tower,

skyscraper, coliseum, roller coaster, hanger, crane, green house, silo, exhaust stack, a fixed or mobile structure, planet, moon, earth, ground.

The device or support structures volumetric energy collecting surface area is interconnected to at least one electrically conductive or charge carrier element containing positive polarity charges, further consisting a
 5 structure composed of and using at least one of, microscopic, or not microscopic; open cells, or closed cells, or solid structures, lattice structure, or surfaces, segmented surface, segmented wire, electrically conductive metal, conductive gas, conductive particle, conductive particle suspended in liquid, matter, or gas, conductive paint, conductive sealant, conductive filament, non-metal conductive matter or non-conductive materials conductively plated, conductively coated, or impregnated with conductive material, to increase at
 10 least one collection device or support structures overall useful volumetric energy collecting surface area.

The device, in operation, with increased useful energy collecting surface area to volume ratio of the device or support structure, collecting surface area increased by arranging at least one of; the formation of materials, atoms, structures, surfaces or utilizing unused surfaces to create increased energy collecting surface area exposed to negative polarity charges within a volumetric area.

15 The volumetric energy collecting surface area encompassed in an area containing negative polarity charges, charges, said volumetric energy collecting area not limited to any particular geometric shape, specific formation, configuration, or segmentation with a minimum size of 1 attometer in height by 1 attometer in length by 1 attometer in width, being a maximum size of 1 exameter in height by 1 exameter in length by 1 exameter in width, or any size or configuration within the minimum size up to the maximum size, said device
 20 or support structures useful volumetric energy collecting surfaces are electrically conductive, or non-conductive conductively covered, impregnated, or a conductive composition, useful volumetric energy collecting surfaces being, or not, electrically isolated from their support structure or other collection devices, the support structure comprising at least one of building, roof, wall, window, ceiling, window frame, gutter, frame, siding, building interior, insulation, drywall, fencing, furniture, flooring, door, ducting,
 25 drapes, building exterior, couch, desk, table, ottoman, shelving, bed, chair, carpet, wire, , clothing, electronic casing, electronic devise, electronic unit, rod, beam, particle, gas, liquid, sheet, foam, foam structure, mesh, human, vehicle, ducting, foil, array, expandable array, conductively 3d printed structure, airplane, helicopter, flying car, jet, rocket, spaceship, space station, satellite, living habitat, car, truck, van, motorcycle, dump truck, hauling truck, blimp, concrete, asphalt, flooring, roadway, bridge, overpass,
 30 runway, train yard, wind turbine, solar panel, cell tower, radio tower, sail, drilling rig, tower, mast, mobile

building , platform, billboard, water tower, skyscraper, coliseum, roller coaster, hanger, crane, green house, silo, exhaust stack, a fixed or mobile structure, planet, moon, earth, ground.

The device or support structures volumetric energy collecting surface area is interconnected to at least one electrically conductive or charge carrier element containing negative polarity charges.

- 5 A load with an electric connection to at least one useful volumetric energy collecting surface area of a positive polarity collection device or support structure, and said load with an electric connection to at least one separate useful volumetric surface area of a negative polarity collection device or support structure connection.

10 Embodiments of the present disclosure can also be viewed as providing systems and methods for collecting energy, this can be briefly described in architecture one embodiment, among others, can be implemented by;

a structure composed of and using at least one of, microscopic, or not microscopic; open cells, or closed cells, or solid structures, lattice structure, or surfaces, segmented surface, segmented wire, electrically conductive metal, conductive gas, conductive particle, conductive particle suspended in liquid, matter, or gas, conductive paint, conductive sealant, conductive filament, non-metal conductive matter or non-
15 conductive materials conductively plated, conductively coated, or impregnated with conductive material, to increase at least one collection device or support structures overall useful volumetric energy collecting surface area consisting essentially of;

a device, in operation, with increased useful energy collecting surface area to volume ratio of the device or support structure, collecting surface area increased by arranging at least one of; the formation of materials, atoms, structures, surfaces or utilizing unused surfaces to create increased energy collecting surface area exposed to positive polarity charges within a volumetric area;

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volumetric energy collecting surface area encompassed in an area containing positive polarity charges, said volumetric energy collecting area not limited to any particular geometric shape, specific formation, configuration, or segmentation with a minimum size of 1 attometer in height by 1 attometer in length by 1 attometer in width, being a maximum size of 1 exameter in height by 1 exameter in length by 1 exameter in width, or any size or configuration within the minimum size up to the maximum size, said device or support structures useful volumetric energy collecting surfaces are electrically conductive, or non-conductive conductively covered, impregnated, or a conductive composition, useful volumetric energy collecting surfaces being, or not, electrically isolated from their support structure or other collection devices, the
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support structure comprising at least one of building, roof, wall, window, ceiling, window frame, gutter, frame, siding, building interior, insulation, drywall, fencing, furniture, flooring, door, ducting, drapes, building exterior, couch, desk, table, ottoman, shelving, bed, chair, carpet, wire, , clothing, electronic casing, electronic devise, electronic unit, rod, beam, particle, gas, liquid, sheet, foam, foam structure, mesh,

5 human, vehicle, ducting, foil, array, expandable array, conductively 3d printed structure, airplane, helicopter, flying car, jet, rocket, spaceship, space station, satellite, living habitat, car, truck, van, motorcycle, dump truck, hauling truck, blimp, concrete, asphalt, flooring, roadway, bridge, overpass, runway, train yard, wind turbine, solar panel, cell tower, radio tower, sail, drilling rig, tower, mast, mobile building , platform, billboard, water tower, skyscraper, coliseum, roller coaster, hanger, crane, green house,

10 silo, exhaust stack, a fixed or mobile structure, planet, moon, earth, ground;

the device or support structures volumetric energy collecting surface area is interconnected to at least one electrically conductive or charge carrier element containing positive polarity charges, further consisting of;

a structure composed of and using at least one of, microscopic, or not microscopic; open cells, or closed cells, or solid structures, lattice structure, or surfaces, segmented surface, segmented wire, electrically

15 conductive metal, conductive gas, conductive particle, conductive particle suspended in liquid, matter, or gas, conductive paint, conductive sealant, conductive filament, non-metal conductive matter or non-conductive materials conductively plated, conductively coated, or impregnated with conductive material, to increase at least one collection device or support structures overall useful volumetric energy collecting surface area consisting essentially of;

20 said device, in operation, with increased useful energy collecting surface area to volume ratio of the device or support structure, collecting surface area increased by arranging at least one of; the formation of materials, atoms, structures, surfaces or utilizing unused surfaces to create increased energy collecting surface area exposed to negative polarity charges within a volumetric area;

volumetric energy collecting surface area encompassed in an area containing negative polarity charges,

25 charges, said volumetric energy collecting area not limited to any particular geometric shape, specific formation, configuration, or segmentation with a minimum size of 1 attometer in height by 1 attometer in length by 1 attometer in width, being a maximum size of 1 exameter in height by 1 exameter in length by 1 exameter in width, or any size or configuration within the minimum size up to the maximum size, said device or support structures useful volumetric energy collecting surfaces are electrically conductive, or non-

30 conductive conductively covered, impregnated, or a conductive composition, useful volumetric energy

collecting surfaces being, or not, electrically isolated from their support structure or other collection devices, the support structure comprising at least one of building, roof, wall, window, ceiling, window frame, gutter, frame, siding, building interior, insulation, drywall, fencing, furniture, flooring, door, ducting, drapes, building exterior, couch, desk, table, ottoman, shelving, bed, chair, carpet, wire, , clothing, electronic casing, electronic devise, electronic unit, rod, beam, particle, gas, liquid, sheet, foam, foam structure, mesh, human, vehicle, ducting, foil, array, expandable array, conductively 3d printed structure, airplane, helicopter, flying car, jet, rocket, spaceship, space station, satellite, living habitat, car, truck, van, motorcycle, dump truck, hauling truck, blimp, concrete, asphalt, flooring, roadway, bridge, overpass, runway, train yard, wind turbine, solar panel, cell tower, radio tower, sail, drilling rig, tower, mast, mobile building , platform, billboard, water tower, skyscraper, coliseum, roller coaster, hanger, crane, green house, silo, exhaust stack, a fixed or mobile structure, planet, moon, earth, ground;

the device or support structures volumetric energy collecting surface area is interconnected to at least one electrically conductive or charge carrier element containing negative polarity charges;

a load with an electric connection to at least one useful volumetric energy collecting surface area of a positive polarity collection device or support structure, and said load with an electric connection to at least one separate useful volumetric surface area of a negative polarity collection device or support structure connection.

The foregoing was intended as a broad summary only and only of some of the aspects of the invention. It was not intended to define the limits or requirements of the invention. Other aspects of the invention will be appreciated to one skilled in the art by reference to the detailed description of the preferred embodiment and to the claims. It is intended that all such additional systems, methods, aspects, and advantages be included with this description, and within the scope of the present disclosure, and be protected by the accompanying claims.

Brief description of drawings

The invention will be described by reference to the detailed description of the preferred embodiment and to the drawings thereof in which:

FIG. 1 illustrates a preferred embodiment of the method for utilizing the useful volumetric surface area of a collection device or support structure for collecting electric charges.

FIG.2 demonstrates a surface area contained within a volumetric area.

FIG.3 illustrates a material with an open cell structure.

FIG.4 illustrates a material with a semi-open cell structure

FIG.5 illustrates a material with a closed cell structure.

FIG.6 illustrates a cross section of a negative charge.

FIG. 7 illustrates a cross section of a positive charge.

FIG.8 illustrates the Earth and the atmosphere's relation in regard to this theory and method.

FIG.9 charts the voltage of a single strand of 36 gauge copper wire with its elevation.

FIG.10 charts the charge rate of a single strand of 36 gauge copper wire with its elevation.

FIG.11 depicts the theory of electromagnetic density.

FIG.12 illustrates the factors affecting the output force of an energy collector.

FIG.13 illustrates a circuit diagram showing the multiple interchangeable components and paths for a charge particle.

FIG.14 is a circuit diagram showing the use of a bridge rectifier.

FIG.15 is a circuit diagram showing the use of a bridge rectifier for a dual charging circuit.

FIG.16 is a circuit diagram showing the use of a diode.

FIG.17 is a circuit diagram showing the use of a diode and a charge regulating device.

FIG.18 is a circuit diagram using a PNP transistor and charge regulating device.

FIG.19 is a circuit diagram using it NPN transistor and charge regulating device.

FIG.20 illustrates a method for utilizing the useful volumetric energy collecting surface area of a collection device or support structure for use in smaller less power consuming devices.

FIG.21 illustrates a diagram showing wire as the conductor in a positively charged volumetric area.

FIG.22 illustrates a diagram showing conductive particles as the conductor in a positively charged volumetric area.

FIG.23 illustrates a high rise building with a preferred embodiment located on top of the building with other conductive attributes.

FIG.24 illustrates one level of a high-rise building with conductive attributes.

FIG.25 illustrates a vehicle with conductive attributes.

FIG.26 illustrates an elevated diagram of a plane with conductive attributes.

FIG.27 illustrates harvesting charge from a conductive element.

FIG.28 illustrates the use of a conductive paint or coating.

FIG.29 illustrates the use of a human as a conductor for volumetric charge collecting.

Detailed description

Figure 1 illustrates a preferred embodiment of the method for utilizing the useful volumetric surface area of a collection device or support structure for collecting electric charges; the volumetric energy collecting area 100 is preferred to consists of sheets of conductive foam 780 with an open cell structure 680 the sheets and structural composition allow for greatly expanded surface 120 area within the volumetric energy collecting area 100, in order to gain the large amount of conductive surface area 180 required to collect enough energy to be usable, this is also dependent on the charge density in the volumetric collecting area, and the resistance of the conducting or charge carrying element, the overall amount of surface area required may be tens of millions to hundreds of millions of square feet of conductive surface area interlocked with the conductive or charge carrier element, such as lower elevations in our atmosphere. Additional embodiments may be made from any microscopic, or not microscopic, open cells structures, or closed cells structures, or solid structures, or surfaces. Segmented surfaces 1300 may also be used, segmented wires have been shown to yield good results. In order to allow charges to flow the surfaces and structures need to be one of electrically conductive material, conductive gas, conductive particles, conductive particles suspended in liquid, conductive particles suspended in matter, or a conductive particles suspended in gas. Conductive paint is an example of a conductive particles suspended in a liquid that turns to a solid, as well as conductive sealant 1050 is also an example of a conductive particles suspended in a liquid that once it evaporates it turns into a solid. With the advancements in technology Conductive filament may be very advantageous to use in some circumstances. Non-metal conductive matter or non-conductive materials conductively plated can also be a good substitute, they may be conductively coated as well, or impregnated with conductive material. Options may also include magnetic or non-magnetic substances selected from the group consisting of metals, semi-metals, alloys, intrinsic or doped, inorganic or organic, semi-conductors. Other materials may include dielectric materials, layered materials, intrinsic or doped polymers, conducting polymers, ceramics, oxides, metal oxides, salts, organic molecules, cements, and glass and silicate which if made to allow the transfer of charges, or the conducting of charges could provide potential substitutes.

The support structure may comprise a vast variety of options, these may include a building and all of its interior or exterior surfaces, this may also include the empty spaces or “voids”(not shown) within the building allowing for additional conducting structures or surfaces to utilize this “free space”, for instance in a high rise building this free space could amount to hundreds of millions to billions of square feet of

potential surface area for energy collecting if utilized with the right structures and arrangements, additionally roofs, walls, windows, ceilings, window frames, gutters, siding, insulation, drywall, fencing, furniture, flooring, doors, ducting, drapes, couch's, desks, tables, ottomans, shelving, beds, chairs, carpet, ducting, and may also include wire, electronic casings, rods, beams, or its frame. Particles, gases, liquids, sheets, foil and meshes may also be support structures. Human and animals as well as clothing could also be used. Vehicles may also be used as support structures and could include, airplanes, helicopters, flying cars, jets, rockets, spaceships, satellites, cars, trucks, vans, motorcycles, dump trucks, hauling trucks, blimps. Other support structures may include concrete, asphalt, roadways, bridges, overpasses, runways, train yards, wind turbines, solar panels, cell towers, radio towers, sails, drilling rigs, towers, masts, mobile buildings, platforms, billboards, water towers, skyscrapers, coliseums, roller coasters, hangers, cranes, arrays, space stations, living habitats, expandable arrays, conductively 3d printed structures, green houses, silos, exhaust stacks, a fixed or mobile structure, planets, moons, earth, and the ground. Where open cell 680 foam and foam structures 780 are preferred.

These structures and materials are used to increase at least one collection device 50 or support structures 75 overall useful volumetric energy collecting surface area 100, which is interlocked with a conductive element 110. The volumetric energy collecting surface area 100 of the device 50 is preferred to be made out of a low resistance conductive material such as carbon (graphene), silver, copper, annealed copper, gold, aluminum, calcium, tungsten, zinc, nickel, lithium, iron, platinum, tin, carbon steel, led, titanium, grain oriented electrical steel, manganin, constantan, stainless steel, mercury, nichrome, gaAs, carbon (amorphous), carbon (graphite), germanium, silicone, wood (damp), Teflon, with the best results having been attained from pure copper.

The surface area 120 is greatly expanded both by sectioning the conductive foam 780 into individual segmented sheets 1300, and these segmented sheets using an open cell 680 type of structural composition. The conductive foam 780 is held and separated by insulating mounts 530, and are arranged on an insulating surface 590. This surface is further insulated by insulating glass 520 and then finally insulating concrete 510. Many different methods of insulating the conductive element are possible, and by implementing different methods it does not depart from the scope and meaning of this disclose method to electrically insulate or isolate the conductive surface or surfaces. The current is built up in the conductive foam 780, and then transfers through a diode 260, this could be substituted for any single polarity charge inhibitor or a transistor, a heated cathode vacuum tube (not shown) may also be used in some circumstances, where this application may allow for greater electric currents to flow with only a small input power, a full wave, or half

wave bridge rectifier (not shown) may also be used, into a current and signal carrying conductor 450. This current then travels to a microprocessor 300 that is preferred, but other options include computing devices and pulse devices (not shown) which control the rate in which each individual conductive foam sheets release energy into a transformer 320. The charge released is a varying electric charge sent into the primary winding of the transformer, this creates an induced pulsed current in the primary winding, and in so doing induces an alternating current in the secondary winding. By controlling the specific number of turns of an insulated conducting wire in the primary winding, and turns of insulated conducting wire in the secondary winding, inductively coupled together, and controlling the released energy rate, you can create a controllable output in the secondary winding. This output then travels to either 340 a capacitor, or an inductor, or a battery (not shown) for storing useful energy for later use, or to 370 a load, and then to 190 a ground, or to a negative collector's volumetric surface area (not shown) in a negative polarity environment, coupled to a negative charge carrier or conducting element 110, wherein load 370 and ground 190 are preferred respectively.

Figure 2 demonstrates a surface area contained within a volumetric area, the first cube 1270 is a 1 cm cube, a cube has six sides, in order to identify the surface area of this cube you multiply the length times the width times the number of sides to receive at the results that this first 1 cm cube has a total surface area of 6 cm^2 . The second cube consists of smaller 1 mm cubes 1280, the overall volumetric area still remains as a 1 cm cube 1270 the surface area in this cube however is multiplied by the surface area of each 1 mm cube which in turn yields a total surface area of 60 cm^2 . The third and final cube consists of even smaller one nanometre cubes 1290, the overall volumetric area still remains at 1 cm 1270, however the surface area in this cube is multiplied by even smaller 1nm cubes which in turn yields a total surface area of $60,000,000 \text{ cm}^2$. This figure clearly demonstrates that a volumetric area can have an expanded surface area dependent upon the construction and geometry of the materials contained therein. This action allows for greater usable surface areas, and thus when referencing this method, and interlocking this expanded surface area with the conducting or charge carrying element can yield greater charge collecting results in the same volumetric area.

Figure 3 illustrates a material with an open cell structure, the surface area 120 is greatly expanded in this type of open cell 680 structure, as the volumetric energy collecting area 100 increases the most common use for this type of structure is a foam type composite. By using this type of structure with a conductive element 110 you can greatly increase the overall charge collecting abilities of a device 50 within the same

volumetric area, as the interlocking with a conductive element can be greatly increased, because of all of the open areas within the structure.

Figure 4 illustrates a material with a semi-open cell structure, this type of partially open cell 690 structure has many advantages for strength and flexibility, it has a greatly expanded surface area 120 within a volumetric energy collecting area 100. When this element is interlocked with a conductive element 110 it's usable volumetric area is increased substantially, it is an ideal choice for a collection device 50 as it is structurally strong, and has a great deal of exposed surface area for interlocking with the conductive element for charge collecting.

Figure 5 illustrates a material with a closed cell structure, this type of closed cell 700 structure has many advantages for strength, it is not as preferred as an open cell 680(not shown) or partially open cell 690(not shown) structure as the interlocking capabilities with a conductive element 110 are more limited and not as expanded as much as the latter two cell structures.

Figure 6 illustrates a cross section of a negative charge, negative charge 1190 surface area 120 is greatly expanded because of its electric charge magnetic field 1210, by taking a cross-section of the X axes 1140 and the Y axes 1150, this shows how a negative polarity electric charge has a greater surface area or magnetic field area than the charge itself.

Figure 7 illustrates a cross-section of a positive charge, positive charge 1180 surface area 120 is greatly expanded because of its electric charge magnetic Field 1210, taking a cross-section of the X axis 1140 and the y-axis 1150 demonstrates the outward direction of the electric charges magnetic Field 1210, this shows how a positive polarity electric charge has a greater surface area or field area than the charge itself, and that its electric charges magnetic field is pushing in an outward direction.

Figure 8 illustrates the Earth and atmosphere's relation in regards to this theory and method, the atmosphere 1220 is filled with closely knit mainly positive polarity microscopic charges is 1180. The Earth 1200 is filled with closely knit mainly negative microscopic charges 1190, as we enter the region between the upper atmosphere, and deeper ground we have an area that is filled with both negative and positive polarity charges. The current method takes advantage of these properties by placing a conductor in a positively charged area 230 exposed to the atmosphere 1220 with the greatest surface area possible, and negative polarity collecting device 50 exposed to the ground. By having a large surface area exposed to the positive polarity charges and creating a path with a conductor that has less resistance than the conductive element 110 positive charges couple to the positive polarity charge collector and travel through the

conductor and device into the Earth 1200. While these positive charges are travelling through the conductor they create an area of lower positive charge density, causing other positive polarity charges to migrate to that area because the repellent effects of other positive polarity charges has been reduced. This same processes happens in the area of the negative charge collector causing other negative polarity charges 1190 to migrate to that area because the repellent effects of other negative polarity charges has been reduced. This processes has been shown to continue indefinitely.

The factors that have been observed to affect both the charge rate and the accumulated voltage maximum are, the amount of volumetric energy collecting surface area 100 exposed to positive polarity charges, the direct elevation 1240 or height of the conductor in the positively charged area 230, the resistance of the conductive element 110 holding the positive polarity charges, the amount of volumetric energy collecting surface area 210 exposed to the negative polarity charges 1190, the depth of the negative polarity charge collector, the ground or conductive element 110 resistance, and the resistance of the device 50 components.

Figure 9 charts the voltage of a single strand of 36 gauge copper wire with its elevation, the 36 gauge copper wire was used as it was the thinnest gauge wire that could be elevated without snapping under its own weight, it was used to give a baseline for usable surface area voltage 1120 calculations, it demonstrated the linear increase of usable voltage with increased elevation 1240 up to 120 feet. The graph demonstrates at any given elevation by taking 1230 a cross-section at a given elevation you can determine the usable voltage based on the surface area at that elevation of 36 gauge wire.

Figure 10 charts the charge rate of a single strand of 36 gauge copper wire with its elevation and one 50V 100 μ F electrolytic capacitor, the 36 gauge copper wire was used as it was the thinnest gauge wire that could be elevated 1240 without snapping under its own weight, it was used to give a baseline for usable surface area charge rate 1130 calculations, it demonstrated the linear increase of the charge rate with the linear increase in elevation, the graph demonstrates at any given elevation by taking 1230 cross-section at a given elevation you can determine the charge rate based on the surface area and that elevation of 36 gauge single-strand wire.

Figure 11 depicts the theory of electromagnetic density, electromagnetic density 1250 can be used to do usable work, it can be compared to a lever for doing work where with a lever you have weight which will need to be lifted, you have the lever which will transfer the weight needing to be lifted, and you have the time in which the force is applied to the lever to lift the weight.

With electromagnetic density you have the work needing to be done the load (not shown), you have the energy collecting volumetric surface area (not shown) which acts as a lever, you have the volumetric interlocking of the conductive element (not shown) which acts as the fulcrum to push on the surface area, and you have the density of the electric charges that acts as the time rate of force 1170 applied to load. Just as with a lever the longer the lever, and the position of the fulcrum you can amplify the input force to provide a greater output force. With electromagnetic density 1250 the surface area of the collector, the amount of interlocking of the conductive element (not shown), divided by its resistance, and the density of the charges in which the device(not shown)is encompassed, will amplify the input force to create a greater output force 1170.

Figure 12 illustrates the factors affecting the output force of an energy collector, the X axis 1140, Y axis 1150, and Z axis 1160 are orientation axes in order to give a clear understanding as to the directional factors that affect output force on a conducting particle 140. Surface area 120 at a given elevation on the Z axis 1240 is represented by 1230 cross-section of a particle at a given elevation. Where if you increase either of the surface area 120 exposed to the conducting element (not shown), or the elevation 1240, then you can multiply the current output force by the proportional increase in surface area 120 and the proportional increase in electromagnetic density (not shown) in the new elevation 1240, to determine the output force applied to a load (not shown), divided by the resistance of the device (not shown).

Figure 13 illustrates a circuit diagram showing the multiple interchangeable components and paths for a charge particle, a collector located in the positively charged environment 230, is connected to a single polarity charge inhibitor 490, or a transistor 270, or a diode 260, or a heated cathode 460, that is then connected to a microprocessor 300, or a computing device 470, or a pulse device 480, which is then connected to a transformer 320, which is then connected to a battery 360, or capacitor 340, or a load 370, which is then connected to a collector located in a negatively charged environment 240, or ground 190, it should be noted that the collector located in the positively charged environment 230, may in some embodiments change positions with a collector located in a negatively charged environment 240.

Figure 14 is a circuit diagram showing the use of a bridge rectifier, a collector located in the positively charged environment 230, is then connected to the positive end of one diode 260, and the negative end of another diode 260, simultaneously, the collector located in negatively charged environment 240, is then connected to the positive end of one diode 260, and the negative end of another diode 260, simultaneously, a battery 360, or capacitor 340, or a load 370, are then connected to the unused negative ends of the two diodes 260, and the unused positive ends of the two diodes 260. This bridge rectifying for 10 circuit was

used in figures 9 through 12, with 36 gauge single-strand copper wire 710, for 100 V 1 amp rectifying diodes 260, and one 50V 100 μ F electrolytic capacitor 340 to give a baseline for usable harvestable power output in the form of a magnetic field in capacitor 340, the components of the circuit diagram may be interchanged in various forms to yield the same result.

5 Figure 15 is a circuit diagram showing the use of a bridge rectifier for a dual charging circuit, a collector located in the positively charged environment 230, is then connected to the positive end of one diode 260, and the negative end of another diode 260, simultaneously, the collector located in negatively charged environment 240, is then connected to the positive end of one diode 260, and the negative end of another diode 260 simultaneously, a battery 360, or capacitor 340, or a load 370, are then connected to the unused
10 negative ends of the two diodes 260, a separate battery 360, or capacitor 340, or a load 370, are then connected to the unused positive ends of the two diodes 260. This bridge rectifying diagram takes advantage of the oscillatory features of electric charges, it has been observed that if resistance in the form of a battery, capacitor, or load is introduced into either the negative path or the positive path for electric charges, then the opposing polarity will see a momentary increase in voltage. This voltage increase and
15 oscillatory force could be used to further increase the current output of the device (not shown), the components of the circuit diagram may be interchanged in various forms to yield the same result.

Figure 16 is a circuit diagram showing the use of a diode, a collector located in the positively charged environment 230 is connected to a diode 260 diode is then connected to a battery 360 or capacitor 340 or load 370 which is then connected to a collector located in negatively charged environment 240 or ground
20 190, the components of the circuit diagram may be interchanged in various forms to yield the same result, it should also be noted that a spark gap (not shown) in some embodiments may be used as a protection component.

Figure 17 is a circuit diagram showing the use of a diode and a charge regulating device, a collector located in the positively charged environment 230 is connected to a diode 260 diode is then connected to a
25 microprocessor 300 or computing device 470 or pulse device 480 which is then connected to a transformer 320 which is then connected to a battery 360 or capacitor 340 or load 370 which is then connected to a collector located in negatively charged environment 240 or ground 190, the components of the circuit diagram may be interchanged in various forms to yield the same result, it should also be noted that a spark gap (not shown) in some embodiments may be used as a protection component.

Figure 18 is a circuit diagram using a PNP transistor and charge regulating device, a collector located in the positively charged environment 230 is connected to a PNP transistor 280 which is connected to a microprocessor 300 or computing device 470 or pulse device 480 the PNP transistor is also connected to a transformer 320 which is then connected to a battery 360 or capacitor 340 or load 370 which is then
 5 connected to a collector located in a negatively charged environment 240 or ground 190, the components of the circuit diagram may be interchanged in various forms to yield the same result.

Figure 19 is a circuit diagram using a NPN transistor and charge regulating device, a collector located in the positively charged environment 230 is connected to a NPN transistor 290 which is connected to a microprocessor 300 or computing device 470 or pulse device 480 the NPN transistor is also connected to a
 10 transformer 320 which is then connected to a battery 360 or capacitor 340 or load 370 which is then connected to a collector located in a negatively charged environment 240 or ground 190, the components of the circuit diagram may be interchanged in various forms to yield the same result.

Figure 20 illustrates a method for utilizing the useful volumetric energy collecting surface area of a collection device or support structure for use in electronic devices, lights, computers, tablets, cell phones, media players, watches, small motorized devices such as skateboards, hover boards, mopeds, motorized
 15 bikes, jet packs, water propulsion devices, radios and other smaller less power consuming devices.; the volumetric energy collecting surface area 100 may consist of small microscopic solid segmented surfaces 1300 or conducting sheets 770, in a volumetric area less than a few square feet , or square inches or smaller, interlocked with a conductive element 110. The surface area 120 is greatly expanded both by
 20 sectioning the solid conductive material into conducting sheets 770. The conductive sheets are held and separated by insulating mounts 530, insulating mounts may be a semi-conductive material allowing for dual-purpose structural and current path, and are arranged on an insulating surface 590, which may also be a conductive contact point 980 in which a human, or animal, or other conductive body 870 makes contact with the device 50 in order to greatly expand the volumetric energy collecting surface area 100. This surface
 25 is further insulated by insulating glass 520. The current that is built up in the conductive sheets 780, and then transfers through a diode 260 or other single polarity charge inhibitor device (not shown), into a current and signal carrying conductor for 450, too microprocessor 300. This microprocessor controls the rate in which each individual conductive sheets release their energy into a transformer 320, of varying electric charge into the primary winding, allowing a controllable output in the secondary, in some instances
 30 a transformer may not be necessary or used. This output then travels to either 340 a capacitor for storing

useful energy for later use, or to 370 a load, and then, or to 190 ground, in some instances a protection or spark gap or other means for protection may be used to protect the device 50, or the operator (not shown).

Figure 21 illustrates a diagram showing wire as the conductor in a positively charged volumetric area, conductive wire 710 is fixed to insulating structure 580, the insulating structure and conductive wire may alternately be in the form of a microscopic circuit path(not shown) as in a microprocessor(not shown), as in
 5 this embodiment it may be possible to have thousands of kilometres of conductive wire or paths, and millions of diode (not shown) or transistor(not shown) connections, such as in a microprocessor that may have hundreds of millions or billions of transistors present, and an insulating surface 590, which may consist of multiple insulating surfaces 590 as in a microprocessor(not shown). Insulating support legs 600, which
 10 may also be an insulating container (not shown), support the insulating surface 590, positive charges collected through conductive wire 710, and travel through transistor 270 which is connected by a signal carrying conductor 440 to a computing device 470, the computing device 470 sends a signal to transistor 270 which pushes current through the current carrying conductor 430 to transformer 320, which in this embodiment may not be required or present. A varying magnetic field and the primary winding induces a
 15 controllable field in the secondary winding which then sends current to a battery 360, or to a load 370 and then to a conductor in negatively charged area 240, or to ground 190.

Figure 22 illustrates a diagram showing conductive particles as the conductor in a positively charged volumetric area, this design shows the collecting on a single visual plane of a collecting device the orientation and number of visible planes may be altered to form a three dimensional collecting unit with
 20 multiple segmented visible and inner non-visible planes, insulating mount 530 is connected to insulating structure 580 to an insulating container 570 the insulating structure and insulating container in some embodiments may not be necessary, this may be the case where natural processes such as convection may cause positively charged particles or gases to travel through an area on a reoccurring or continuous basis, this also may be the case where particles and gases gather in space for instance in the formation of a star or
 25 planet, these formations could contain positive polarity or negative polarity charges. Conductive particle 740 conductive gas 750 enter through intake system 660 charges are collected by conductive rod 720 in some embodiments instead of said conductive rod used for collection of charges other arrangements may be possible such as arrays or expandable array's, in another embodiment gases may travel through layers of microscopic conductive sheets(not shown), or foils(not shown) and charges may accumulate on the
 30 surfaces, connected to an insulating mount 530 charges flow from insulated rod 720 to a diode 260 then to a signal carrying conductor 440 which is connected to a pulse device 480, the pulse device allows pulsed

charges to travel to transformer 320 through current and signal carrying conductor 450, charges then flow through current carrying conductor 430 to an inductor 330 or a load 370 and then to ground 190.

Figure 23 illustrates a high rise building with a preferred embodiment located on top of the building with other conductive attributes, 220 the preferred embodiment sits on top of the high-rise building, in another embodiment energy collecting surfaces could be located in a below ground, single floor, multi floor, or deep underground structure collecting negative polarity charges, additional conductors in positively charged area include a conductively coated roof 1030, conductive fencing 1070, conductive gutters 830, conductively coated building exterior 960, conductively coated Windows 1010 conductive doors 1110 located on insulating concrete 510.

Figure 24 illustrates one level of a high-rise building with conductive attributes, conductors and a positively charged area include a conductive roof 850, conductive ducting 880 conductive siding 860 conductive doors 1110 conductive furniture 1080 conductive carpet 970 conductive flooring 1090 conductively coated drapes 990 conductive window frames 820 conductive fabric 940 conductive paint 950 conductively coated building interior 1000 conductively coated drywall 1040 conductive walls 1100 conductive sealant 1060.

Figure 25 illustrates a vehicle with conductive attributes, the vehicle may be coated with conductive paint 950 the windows may be conductively coated and 1010 the fabric in the vehicle may be conductive 940 interior may be conductively coated 1050 the vehicles frame may be conductive 840 the vehicle may have conductive siding 860 or conductive paint and the vehicle may sit on insulating rubber tires 500.

Figure 26 illustrates an elevated diagram of a plane with conductive attributes, conductive surface area 180 in another embodiment energy collecting surfaces could be located on or in helicopters, flying cars, jets, rockets, spaceships, or satellites. Conductively coated Windows 1010 conductive paint 950 conductive frame 840.

Figure 27 illustrates harvesting charge from a conductive element, a conductor in a negatively charged area 240, is in a conductive element 110, in some embodiments the conductive element 110 may be a planet, or moon, or asteroid, or an area of dark energy that has a high density of positive or negative polarity charges, other high density areas may include liquids, gases, or concentrations of conductive particles, the current passes into a single polarity charge inhibitor 490 which may also be transistors(not shown), or diodes(not shown), or vacuum tubes with heated cathode's() not shown, in different embodiments circuit formations may consist of microprocessors (not shown) with hundreds of millions or billions of transistor or diode connections(not shown), which is then connected to a conductive expandable array 900.

Figure 28 illustrates the use of a conductive paint or coating, embodiment of the method for utilizing the useful volumetric surface area of a collection device or support structure for collecting electric charges; the volumetric area 100 is preferred to consists of a conductive paint 950 or coating 1050 over surfaces and support structures, but could be made from any microscopic, or not microscopic, open cells structures, or closed cells structures, or solid structures, or surfaces. Segmented surfaces 1300 may also be used, segmented wires have been shown to yield good results. In order to allow charges to flow the surfaces and structures need to be one of electrically conductive material, conductive gas, conductive particles, conductive particles suspended in liquid, conductive particles suspended in matter, or a conductive particles suspended in gas. Conductive paint 950 is an example of a conductive particles 740 suspended in a liquid that turns to a solid, as well as conductive sealant 1060 is also an example of a conductive particles suspended in a liquid that once it evaporates it turns into a solid. With the advancements in technology Conductive filament 930 may be very advantageous to use in some circumstances. Non-metal conductive matter or non-conductive materials conductively plated can also be a good substitute, they may be conductively coated as well, or impregnated with conductive material. Options may also include magnetic or non-magnetic substances selected from the group consisting of metals, semi-metals, alloys, intrinsic or doped, inorganic or organic, semi-conductors. Other materials may include dielectric materials, layered materials, intrinsic or doped polymers, conducting polymers, ceramics, oxides, metal oxides, salts, organic molecules, cements, and glass and silicate which if made to allow the transfer of charges, or the conducting of charges could provide potential substitutes.

The support structure may comprise a vast variety of options, these may include a building and all of its interior or exterior surfaces, which include roofs, walls, windows, ceilings, window frames, gutters, siding, insulation, drywall, fencing, furniture, flooring, doors, ducting, drapes, couch's, desks, tables, ottomans, shelving, beds, chairs, carpet, ducting, and may also include wire, electronic casings, rods, beams, or its frame. Particles, gases, liquids, sheets, foil and meshes may also be support structures. Human and animals as well as clothing could also be used. Vehicles may also be used as support structures and could include, airplanes, helicopters, flying cars, jets, rockets, spaceships, satellites, cars, trucks, vans, motorcycles, dump trucks, hauling trucks, blimps. Other support structures may include concrete, asphalt, roadways, bridges, overpasses, runways, train yards, wind turbines, solar panels, cell towers, radio towers, sails, drilling rigs, towers, masts, mobile buildings, platforms, billboards, water towers, skyscrapers, coliseums, roller coasters, hangers, cranes, arrays, space stations, living habitats, expandable arrays, conductively 3d printed structures, green houses, silos, exhaust stacks, a fixed or mobile structure, planets, moons, earth, and the

ground. Where conductive or conductively painted 950 or coated 1050 open cell 680 or partially open cell 690 structures are preferred.

These structures and materials are used to increase at least one collection device 50 or support structures 75 overall useful volumetric energy collecting surface area 100, which is interlocked with a conductive element 110. The volumetric energy collecting surface area 100 of the device 50 is preferred to be made out of a low resistance conductive material such as carbon (graphene), silver, copper, annealed copper, gold, aluminum, calcium, tungsten, zinc, nickel, lithium, iron, platinum, tin, carbon steel, led, titanium, grain oriented electrical steel, manganin, constantan, stainless steel, mercury, nichrome, gaAs, carbon (amorphous), carbon (graphite), germanium, silicone, wood (damp), Teflon, with the best results having been attained from pure copper.

The surface area 120 is greatly expanded both by utilizing unused surface areas, such as walls, windows building interiors and exteriors and elements contained therein with a conductive coating 1050, or applying a conductive paint 950 over the surfaces. A conductive coating 1050 is applied over an insulating surface 590 and a wall 630, this may be mounted to an insulating structure 580 the conductive coating 1050 transfers current through a current and signal carrying conductor 450. The current is built up in the conductive surface 180, which may comprise multiple, or even hundreds or thousands of segmented electrically connected surfaces 1300, and then transfers through a diode 260, this could be substituted for any amount of single polarity charge inhibitor(not shown) or a transistor 270, a heated cathode vacuum tube(not shown) may also be used in some circumstances, where this application may allow for greater electric currents to flow with only a small input power, a full wave, or half wave bridge rectifier(not shown) may also be used, into a current and signal carrying conductor 450. This current then travels to a microprocessor 300 that is preferred, but other options include computing devices(not shown) and pulse devices() not shown which control the rate in which each individual conductive sheet 770 releases energy into a transformer 320. The charge released is a varying electric charge sent into the primary winding of the transformer 320, this creates an induced pulsed current and magnetic field in the primary winding, and in so doing induces an alternating current in the secondary winding. By controlling the specific number of turns of an insulated conducting wire (not shown) in the primary winding, and turns of insulated conducting wire(not shown) in the secondary winding, and controlling the released energy rate, you can create a controllable output in the secondary winding. This output then travels to either a capacitor 340, or an inductor (not shown), or a battery (not shown) for storing useful energy for later use, or to a load 370, and then to ground 190, or to a negative collector's volumetric surface area in a negative polarity environment

(not shown), coupled to a negative charge carrier or conducting element (not shown), wherein load 370 and ground 190 are preferred respectively. In certain embodiments protective devices such as spark gaps(not shown) or fuses(not shown) may be used.

Figure 29 illustrates the use of a human as a conductor for volumetric charge collecting, the human as the
5 conductor 810, which in other embodiments could also be animals such as cows, horses, chickens, ducks, geese and other birds and animals, is standing on an insulating surface 590 which maybe insulating shoes or other similar wearable coverings or insulating surfaces (not shown) making contact through its conductive body 870 device with a conductive contact 980, in other embodiments the conductive contact could be built into devices, such as smart phones, watches, tablets, laptop computers, wearable technologies, smart
10 glasses, headsets, earphones this is hooked up to a device 50 and then to ground 190.

CLAIMS

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

- 5 1. A method for utilizing the surface area of a collection device in a volumetric way for collecting energy comprising;
 - utilizing the energy collecting surface area of a collecting device within a volumetric area containing charges, the collecting devices exposed surface area within a volumetric area being interlocked with charge carrier element, ratio of exposed surface area and charge carrier element proportional to
 - 10 the charge density of the volumetric area, and
 - with an electrical connection to a load and charge density differential to draw current.
- 15 2. The method of claim 1 wherein utilizing the surface area of a collecting device in a volumetric way may additionally include the support structure for collecting energy and may compose of using at least one of, microscopic, or not microscopic; open cells, or closed cells, or solid structures, lattice structure, or surfaces,
- segmented surface, segmented wire, electrically conductive metal, conductive gas, conductive particle, conductive particle suspended in liquid, matter, or gas, conductive paint, conductive sealant, conductive filament, non-metal conductive matter or non-conductive materials conductively plated, conductively coated, or impregnated with conductive material.
- 20 3. The method of claim 1 wherein by arranging at least one of; the formation of materials, atoms, structures, surfaces or utilizing unused surfaces to create increased ratio of energy collecting surface area to volume of the device or support structure.
- 25 4. The method of claim 1 wherein encompassing the volumetric energy collecting surface area in an area containing charges, said volumetric energy collecting area not limited to any particular geometric shape, specific formation, configuration, or segmentation with a minimum size of 1 attometer in height by 1 attometer in length by 1 attometer in width, being a maximum size of 1 exameter in height by 1 exameter in length by 1 exameter in width, or any size or configuration within the minimum size up to the maximum size.
5. The method of claim 1 wherein the device and or support structures useful volumetric energy collecting surfaces are electrically conductive, or non-conductive conductively covered, impregnated, or a conductive composition.

6. The method of claim 1 wherein the volumetric energy collecting surfaces being, or not, electrically isolated from their support structure and or other collection devices, the support structure may compose of one of building, roof, wall, window, ceiling, window frame, gutter, frame, siding, building interior, insulation, drywall, fencing, furniture, flooring, door, ducting, drapes, building exterior, couch, desk, table, ottoman, shelving, bed, chair, carpet, wire, clothing, electronic casing, electronic device, electronic unit, rod, beam, particle, gas, liquid, sheet, foam, foam structure, mesh, human, vehicle, ducting, foil, array, expandable array, conductively 3d printed structure, airplane, helicopter, flying car, jet, rocket, spaceship, space station, satellite, living habitat, car, truck, van, motorcycle, dump truck, hauling truck, blimp, concrete, asphalt, roadway, bridge, overpass, runway, train yard, wind turbine, solar panel, cell tower, radio tower, sail, drilling rig, tower, mast, mobile building, platform, billboard, water tower, skyscraper, coliseum, roller coaster, hanger, crane, green house, silo, exhaust stack, a fixed or mobile structure, planet, moon, earth, ground.

7. The method of claim 1 wherein using at least one of, microscopic, or not microscopic; open cells, or closed cells, or solid structures, lattice structure, or surfaces, segmented surface, segmented wire, electrically conductive metal, conductive gas, conductive particle, conductive particle suspended in liquid, matter, or gas, conductive paint, conductive sealant, conductive filament, non-metal conductive matter or non-conductive materials conductively plated, conductively coated, or impregnated with conductive material, to be used for collecting energy and or increase at least one collection device or support structures overall volumetric energy collecting surface area.

8. The method of claim 1 wherein the device's volumetric energy collecting surface area is interconnected with at least one electrically conductive or charge carrier element containing a differential of density of charges, in operation, providing a load with an electric connection to utilize current.

9. The method as set forth in claim 1 wherein the device volumetric energy collecting surface area may be composed using at least one of magnetic or non-magnetic substance selected from the group consisting of metals, semi-metals, alloys, intrinsic or doped, inorganic or organic, semi-conductors, dielectric materials, layered materials, intrinsic or doped polymers, conducting polymers, ceramics, oxides, metal oxides, salts, organic molecules, cements, and glass and silicate compounds conductively plated, conductively coated, or impregnated with conductive material.

10. The method as set forth in claim 1 wherein the device volumetric energy collecting surface area may be composed using at least one of low resistance conductive material such as carbon (graphene), silver,

copper, annealed copper, gold, aluminum, calcium, tungsten, zinc, nickel, lithium, iron, platinum, tin, carbon steel, led, titanium, grain oriented electrical steel, manganin, constantan, stainless steel, mercury, nichrome, GaAs, carbon (amorphous), carbon (graphite), germanium, silicone, wood (damp), Teflon.

11. The method as set forth in claim 1 wherein the device volumetric energy collecting surface area may be composed using at least one of layered and spaced apart non-conductive or conductive sheets, conductively plated, conductively coated, or impregnated with conductive material.

12. The method of claim 1 wherein the device volumetric energy collecting surface area is located and interconnected to a conducting medium of differential charge density, and may further comprise a separate volumetric surface area interconnected to a conducting medium of differential of charge density.

13. The method according to claim 1 wherein the conducting medium interconnected to said collecting surface is at least one of, a planet or moon and or their atmosphere, dark energy, dark matter, or cosmological constant (Λ).

14. The method according to claim 12 wherein said conducting medium electrically connected to a higher charge density is the earth's atmosphere and wherein a separate interconnected volumetric surface area of a lower charge density is the earth, or ground.

15. The method of claim 1 wherein the amount of the device's volumetric energy collecting surface area interconnected to conductive elements, is dependent on the charge density, and conducting medium's resistance to charge migration, and the device and loads combined resistances when applied to output current.

16. The method of claim 1 wherein the device comprises at least one of, single polarity charge inhibitor, transistor, diode, heated cathode vacuum tube, or bridge rectifier.

17. The method of claim 1 wherein the device is electrically connected to at least one micro-processor, or computing device, or pulse producing device.

18. The method of claim 1 wherein the volumetric energy collecting surface area is electrically connected to at least one of, single polarity charge inhibitor, transistor, diode, or heated cathode vacuum tube, bridge rectifier, and support structure and a load.

19. The method of claim 1 wherein the collection device comprises storing energy to provide to a load.

20. The method of claim 19 wherein storing energy to provide to the load is stored in at least one capacitor, battery or inductor.

21. The method of claim 1 wherein the device has an electrically connected contact point to allow coupling by touching, attaching, linking, holding, electrically connecting, affixing to or coming in contact with the contact point on the device, to allow an expanded volumetric energy collecting surface area.
22. The method of claim 1 wherein the collection device comprises utilizing a surface not currently used as
5 energy collecting surface, and converting it into an energy collecting surface.
23. A system for utilizing the surface area of a collection device in a volumetric way for collecting energy comprising;
a collection device's energy collecting surface area within a volumetric area containing charges,
10 a charge carrier element interlocked with the collecting devices exposed surface area within a volumetric area, ratio of exposed surface area and charge carrier element proportional to the charge density of the volumetric area, and
a load and charge density differentia with an electrical connection to draw current.
24. The system of claim 23 wherein the surface area of a collecting device and or the support structure for
15 collecting energy in a volumetric way may be composed of using at least one of, microscopic, or not microscopic; open cells, or closed cells, or solid structures, lattice structure, or surfaces, segmented surface, segmented wire, electrically conductive metal, conductive gas, conductive particle, conductive particle suspended in liquid, matter, or gas, conductive paint, conductive sealant, conductive filament, non-metal conductive matter or non-conductive materials conductively plated, conductively coated, or impregnated
20 with conductive material.
25. The system of claim 23 wherein the ratio of energy collecting surface area to volume of the device or support structure may be increased by arranging at least one of; the formation of materials, atoms, structures, surfaces or utilizing unused surfaces .
26. The system of claim 23 wherein encompassing the volumetric energy collecting surface area in an area
25 containing charges, said volumetric energy collecting area not limited to any particular geometric shape, specific formation, configuration, or segmentation with a minimum size of 1 attometer in height by 1 attometer in length by 1 attometer in width, being a maximum size of 1 exameter in height by 1 exameter in length by 1 exameter in width, or any size or configuration within the minimum size up to the maximum size.
27. The system of claim 23 wherein the device and or support structures useful volumetric energy collecting
30 surfaces are electrically conductive, or non-conductive conductively covered, impregnated, or a conductive composition.

28. The system of claim 23 wherein the volumetric energy collecting surfaces being, or not, electrically isolated from their support structure and or other collection devices, the support structure may compose of one of building, roof, wall, window, ceiling, window frame, gutter, frame, siding, building interior, insulation, drywall, fencing, furniture, flooring, door, ducting, drapes, building exterior, couch, desk, table, ottoman, shelving, bed, chair, carpet, wire, clothing, electronic casing, electronic device, electronic unit, rod, beam, particle, gas, liquid, sheet, foam, foam structure, mesh, human, vehicle, ducting, foil, array, expandable array, conductively 3d printed structure, airplane, helicopter, flying car, jet, rocket, spaceship, space station, satellite, living habitat, car, truck, van, motorcycle, dump truck, hauling truck, blimp, concrete, asphalt, roadway, bridge, overpass, runway, train yard, wind turbine, solar panel, cell tower, radio tower, sail, drilling rig, tower, mast, mobile building, platform, billboard, water tower, skyscraper, coliseum, roller coaster, hanger, crane, green house, silo, exhaust stack, a fixed or mobile structure, planet, moon, earth, ground.

29. The system of claim 23 wherein at least one collection device or support structures overall volumetric energy collecting surface area is to be used for collecting energy and or increased using at least one of, microscopic, or not microscopic; open cells, or closed cells, or solid structures, lattice structure, or surfaces, segmented surface, segmented wire, electrically conductive metal, conductive gas, conductive particle, conductive particle suspended in liquid, matter, or gas, conductive paint, conductive sealant, conductive filament, non-metal conductive matter or non-conductive materials conductively plated, conductively coated, or impregnated with conductive material.

30. The system of claim 23 wherein the device's volumetric energy collecting surface area is interconnected with at least one electrically conductive or charge carrier element containing a differential of density of charges, in operation, providing a load with an electric connection utilize current.

31. The system as set forth in claim 23 wherein the device volumetric energy collecting surface area may be composed using at least one of magnetic or non-magnetic substance selected from the group consisting of metals, semi-metals, alloys, intrinsic or doped, inorganic or organic, semi-conductors, dielectric materials, layered materials, intrinsic or doped polymers, conducting polymers, ceramics, oxides, metal oxides, salts, organic molecules, cements, and glass and silicate compounds conductively plated, conductively coated, or impregnated with conductive material.

32. The system as set forth in claim 23 wherein the device volumetric energy collecting surface area may be composed using at least one of low resistance conductive material such as carbon (graphene), silver, copper, annealed copper, gold, aluminum, calcium, tungsten, zinc, nickel, lithium, iron, platinum, tin, carbon

steel, led, titanium, grain oriented electrical steel, manganin, constantan, stainless steel, mercury, nichrome, gaAs, carbon (amorphous), carbon (graphite), germanium, silicone, wood (damp), Teflon.

33. The system as set forth in claim 23 wherein the device volumetric energy collecting surface area may be composed using at least one of layered and spaced apart non-conductive or conductive sheets, conductively
5 plated, conductively coated, or impregnated with conductive material.

34. The system of claim 23 wherein the device volumetric energy collecting surface area is located and interconnected to a conducting medium of differential charge density, and may further comprising a separate volumetric surface area interconnected to a conducting medium of differential of charge density.

35. The system according to claim 23 wherein the conducting medium interconnected to said collecting
10 surface is at least one of, a planet or moon and or their atmosphere, dark energy, dark matter, or cosmological constant (Λ).

36. The system according to claim 34 wherein said interconnected conducting medium of a higher charge density is the earth's atmosphere and wherein a separate interconnected conducting medium of a lower charge density is the earth, or ground.

15 37. The system of claim 23 wherein the amount of the devices volumetric energy collecting surface area interconnected to conductive elements, is dependent on the charge density, and conducting medium's resistance to charge migration, and the device and loads combined resistances when applied to output current.

38. The system of claim 23 wherein the device comprises at least one of, single polarity charge inhibitor,
20 transistor, diode, heated cathode vacuum tube, or bridge rectifier.

39. The system of claim 23 wherein the device is electrically connected to at least one micro-processor, or computing device, or pulse producing device.

40. The system of claim 23 wherein the volumetric energy collecting surface area is electrically connected to at least one of, single polarity charge inhibitor, transistor, diode, or heated cathode vacuum tube, bridge
25 rectifier, and support structure and a load.

41. The system of claim 23 wherein the collection device comprises storing energy to provide to a load.

42. The system of claim 41 wherein storing energy to provide to the load is stored in at least one capacitor, battery or inductor.

43. The system of claim 23 wherein the device has an electrically connected contact point to allow coupling by touching, attaching, linking, holding, electrically connecting, affixing to or coming in contact with the contact point on the device, to allow an expanded volumetric energy collecting surface area.

44. The system of claim 23 wherein the collection device comprises utilizing a surface not currently used as
5 energy collecting surface, and converting it into an energy collecting surface.

45. A system for collecting energy utilizing the surface area of a collection device in a volumetric way;
wherein a

means for collecting energy;

10 means for utilizing the energy collecting surface area of a collection device within a volumetric area containing charges;

means for a collecting devices exposed surface area within a volumetric area being interlocked with a charge carrier element;

15 means for determining ratio of exposed surface area and charge carrier elements proportionality to charge density of the volumetric area;

means to draw current;

means to utilize a charge density differential;

means to provide current to a load or storage device.

20

Figure 1

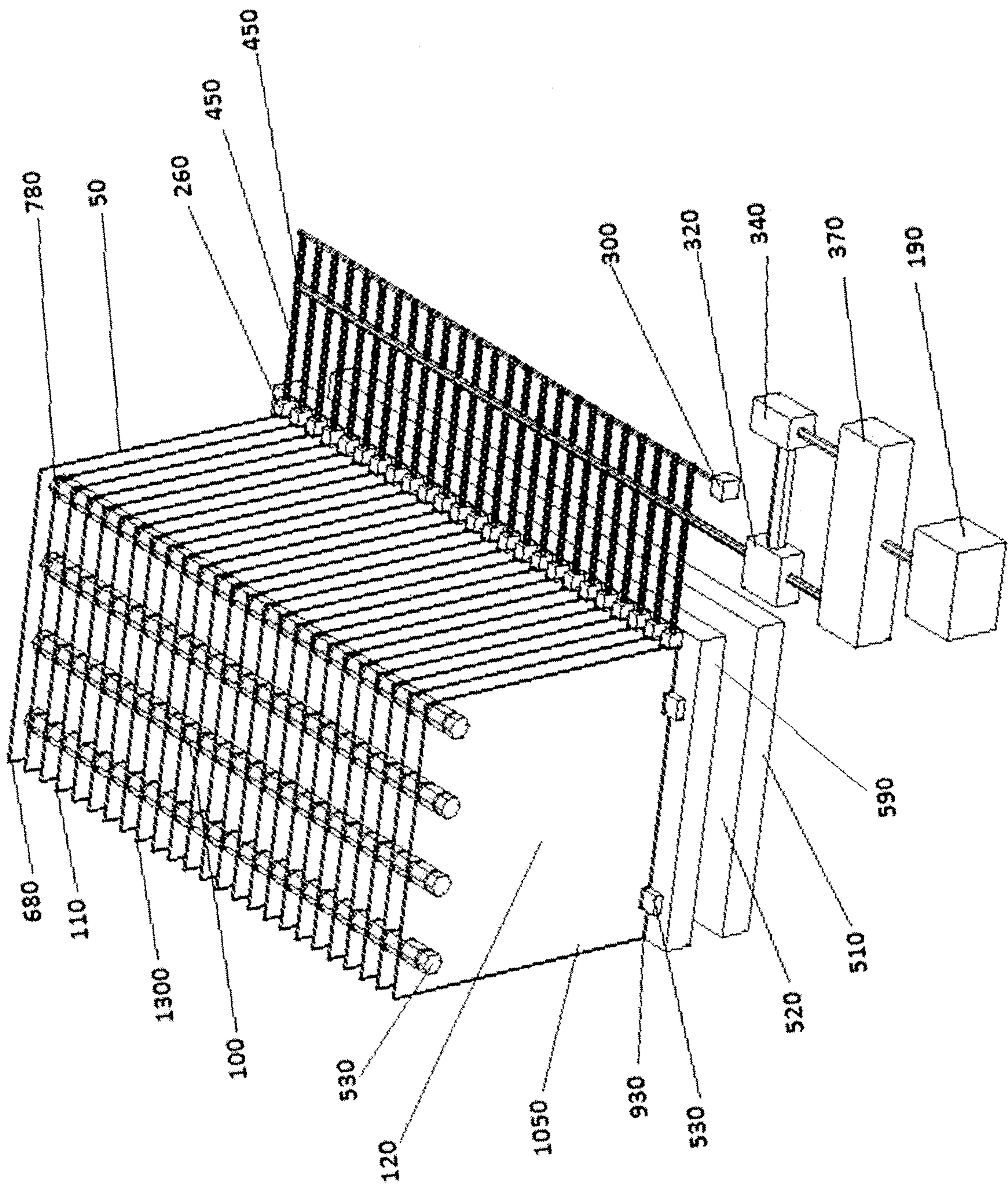


Figure 2

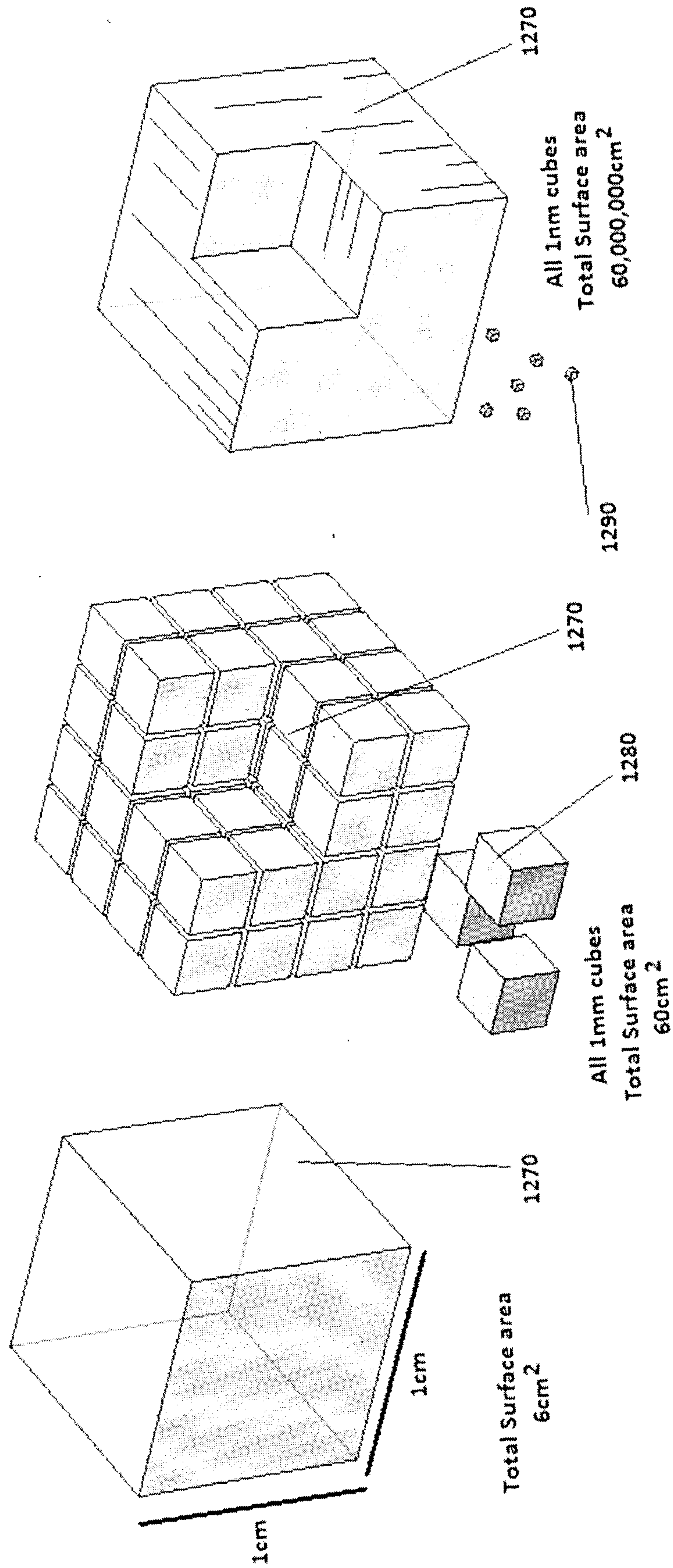


Figure 3

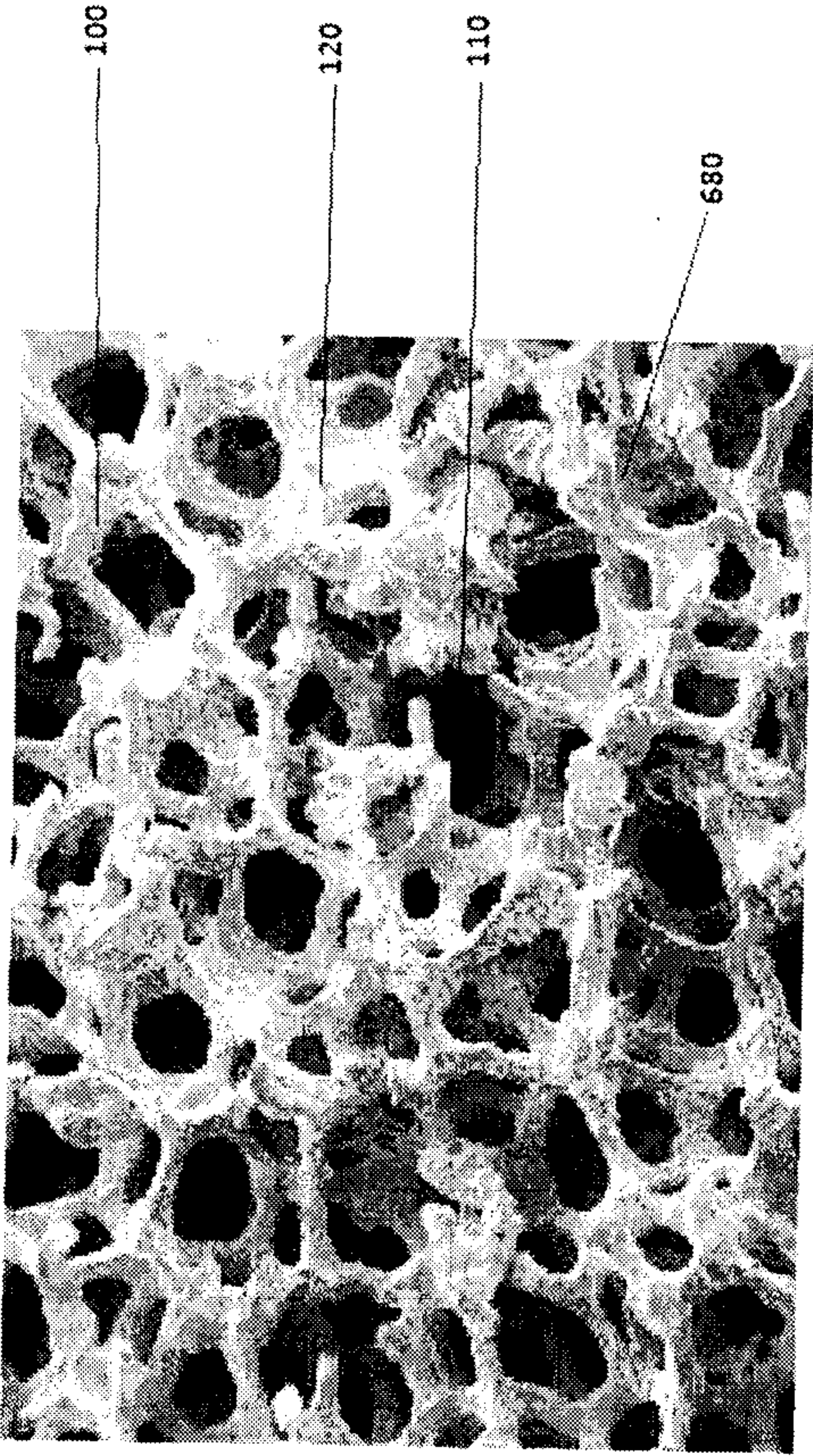


Figure 4

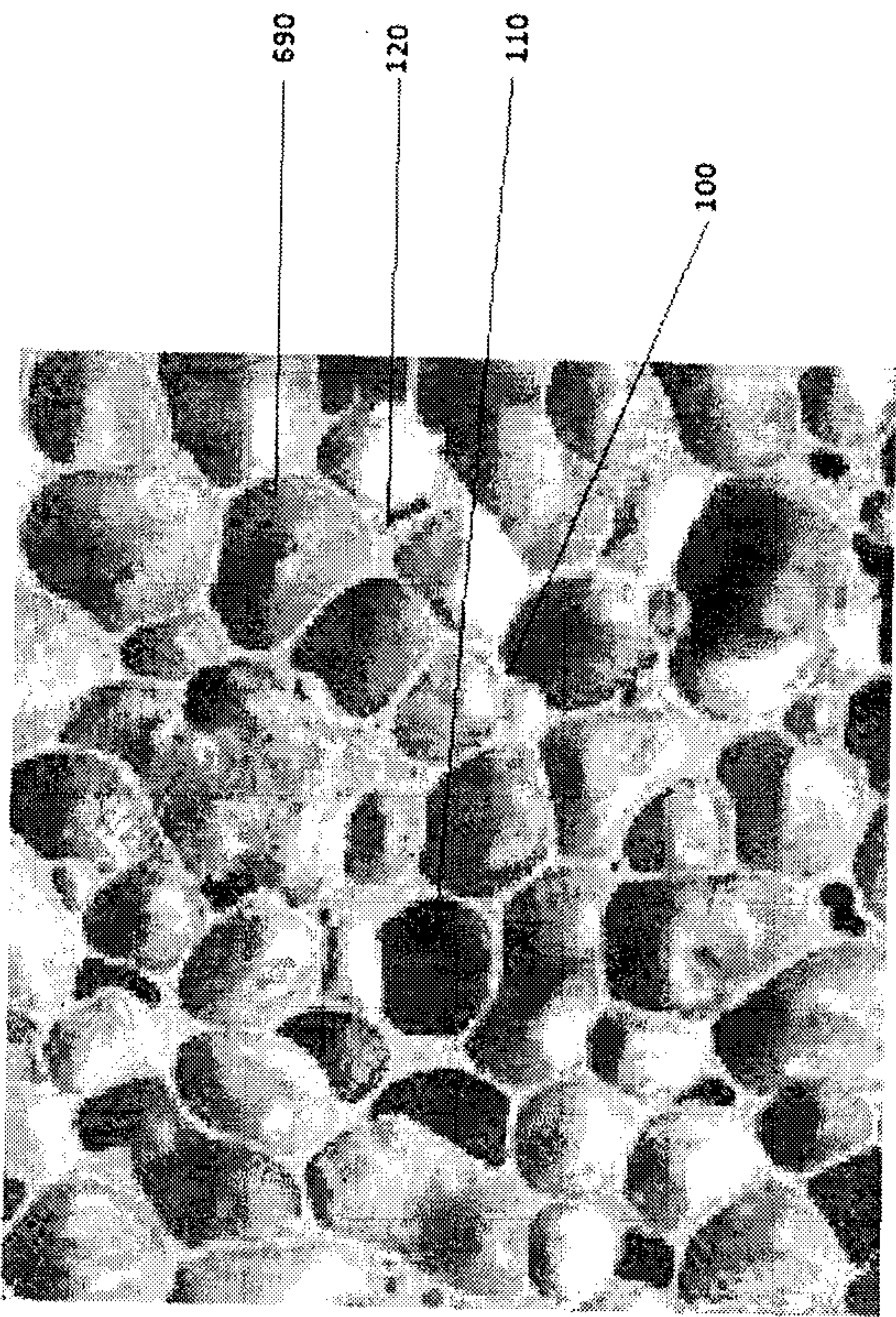


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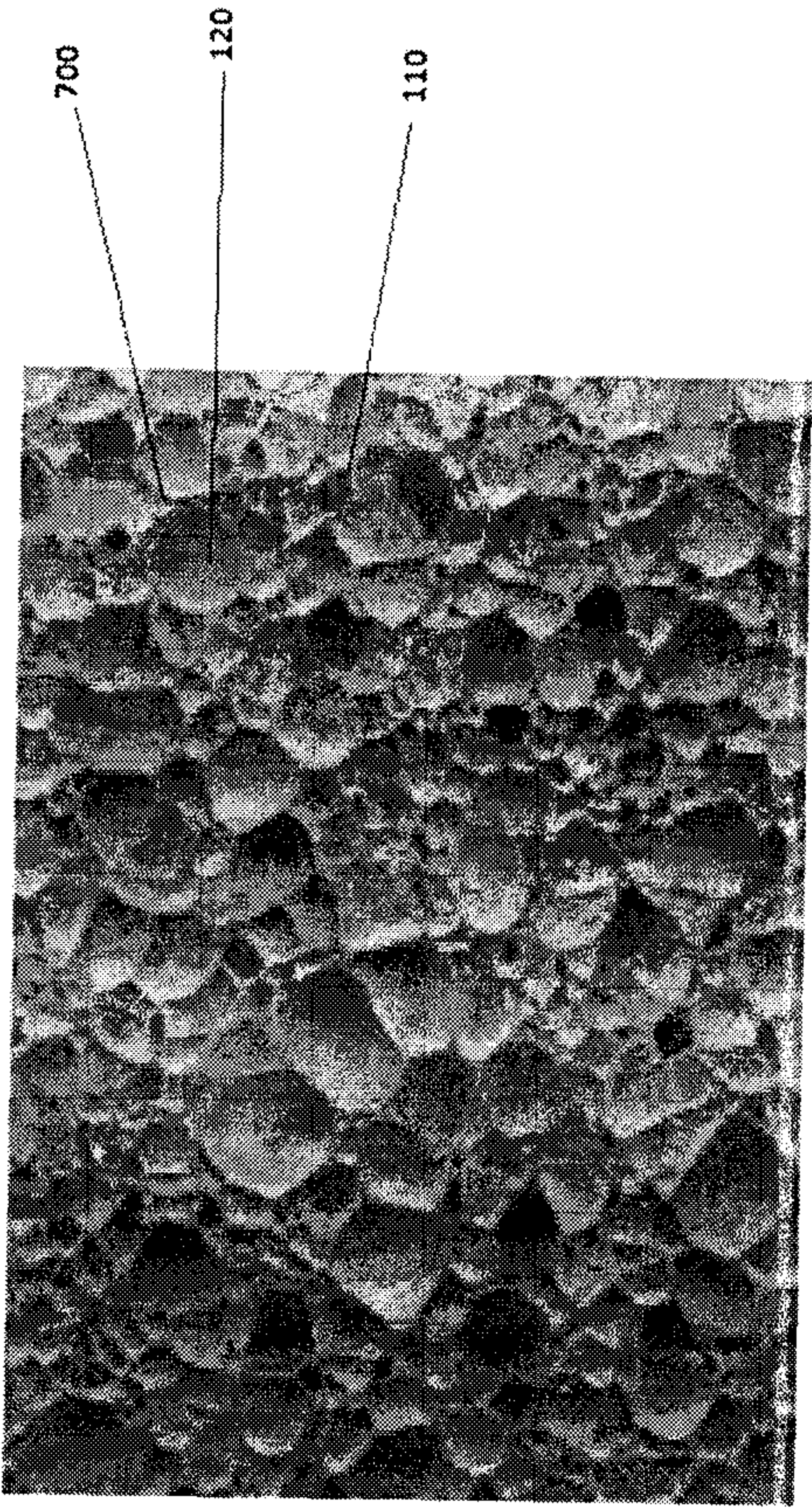


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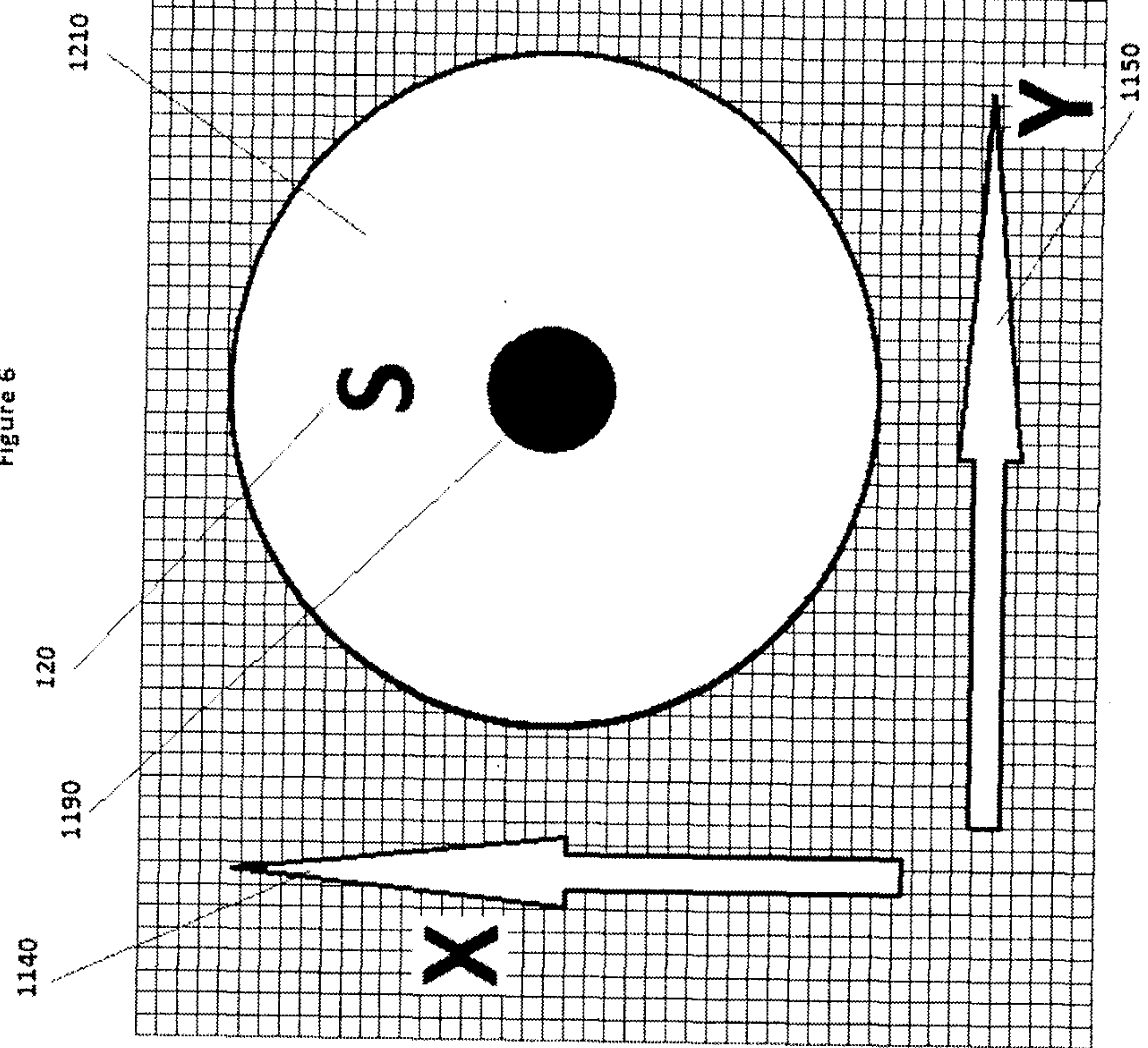
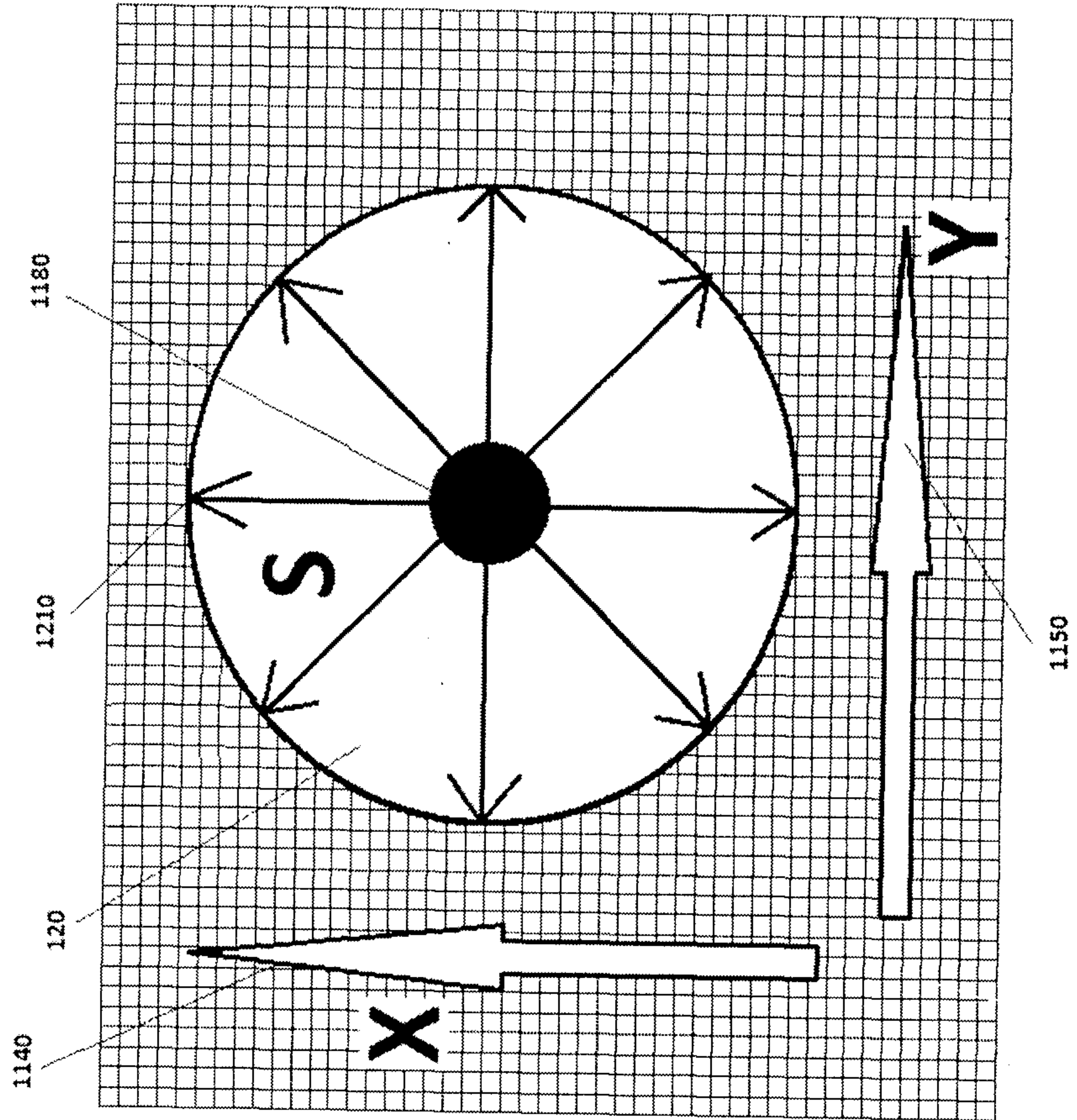


Figure 7



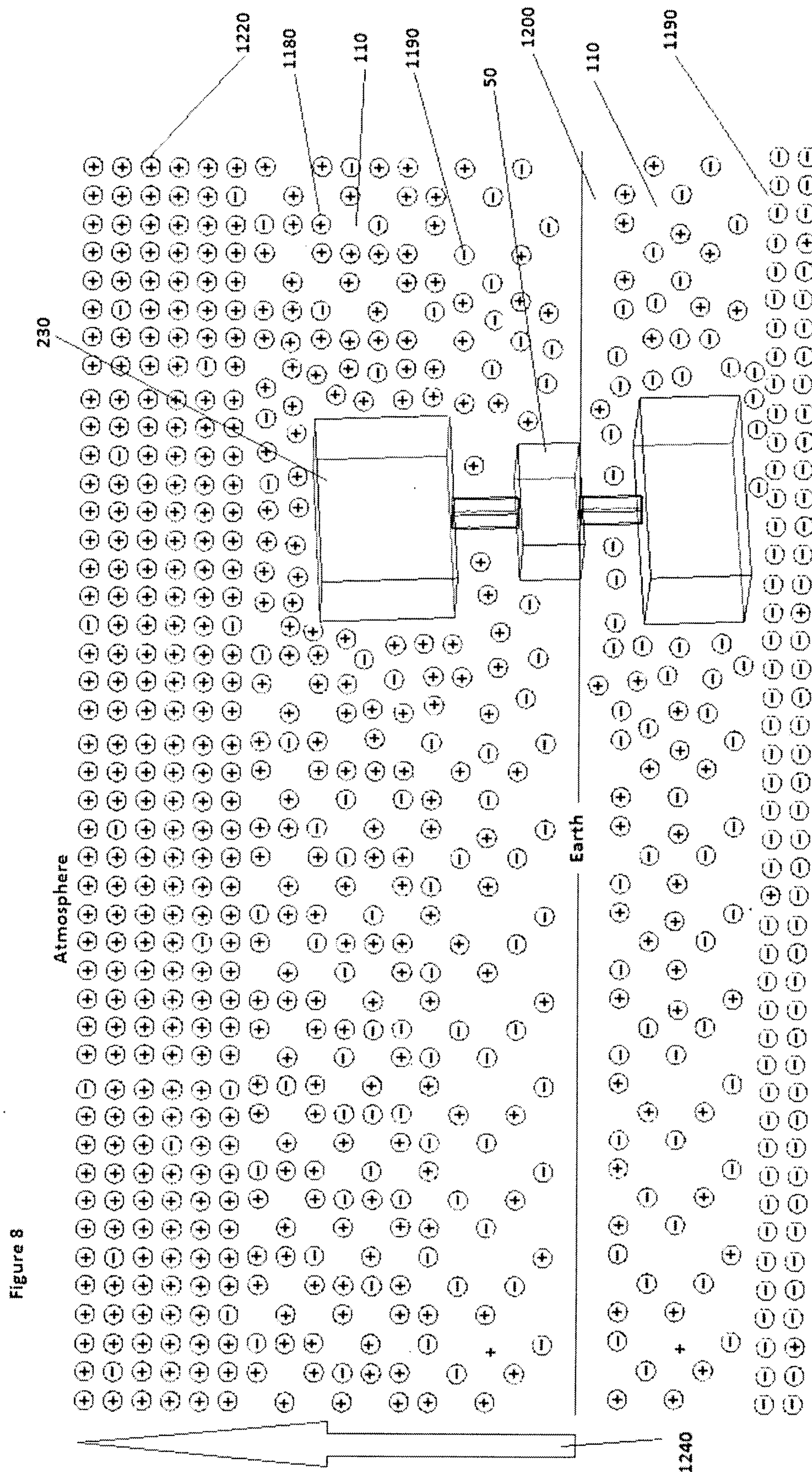


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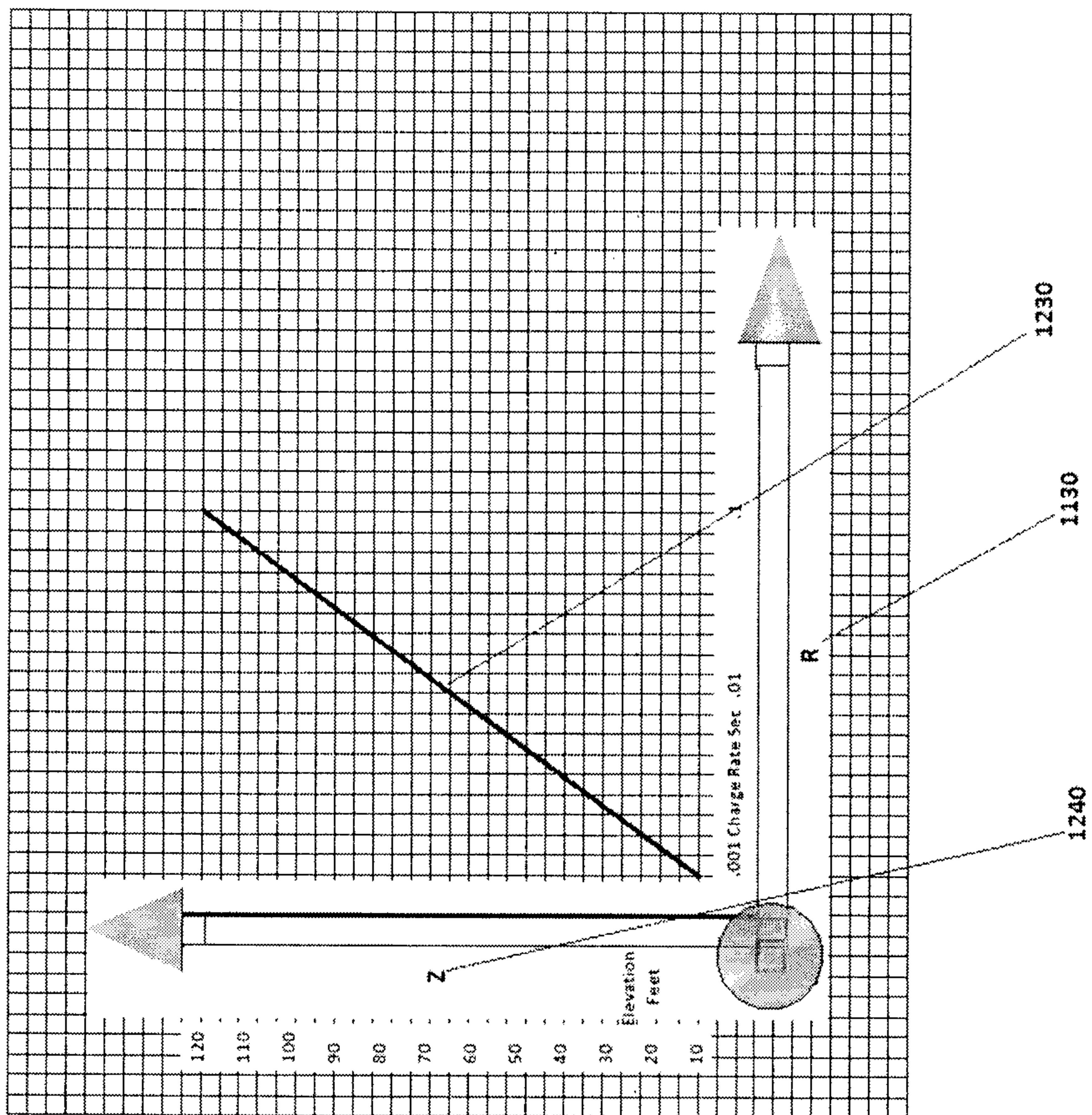
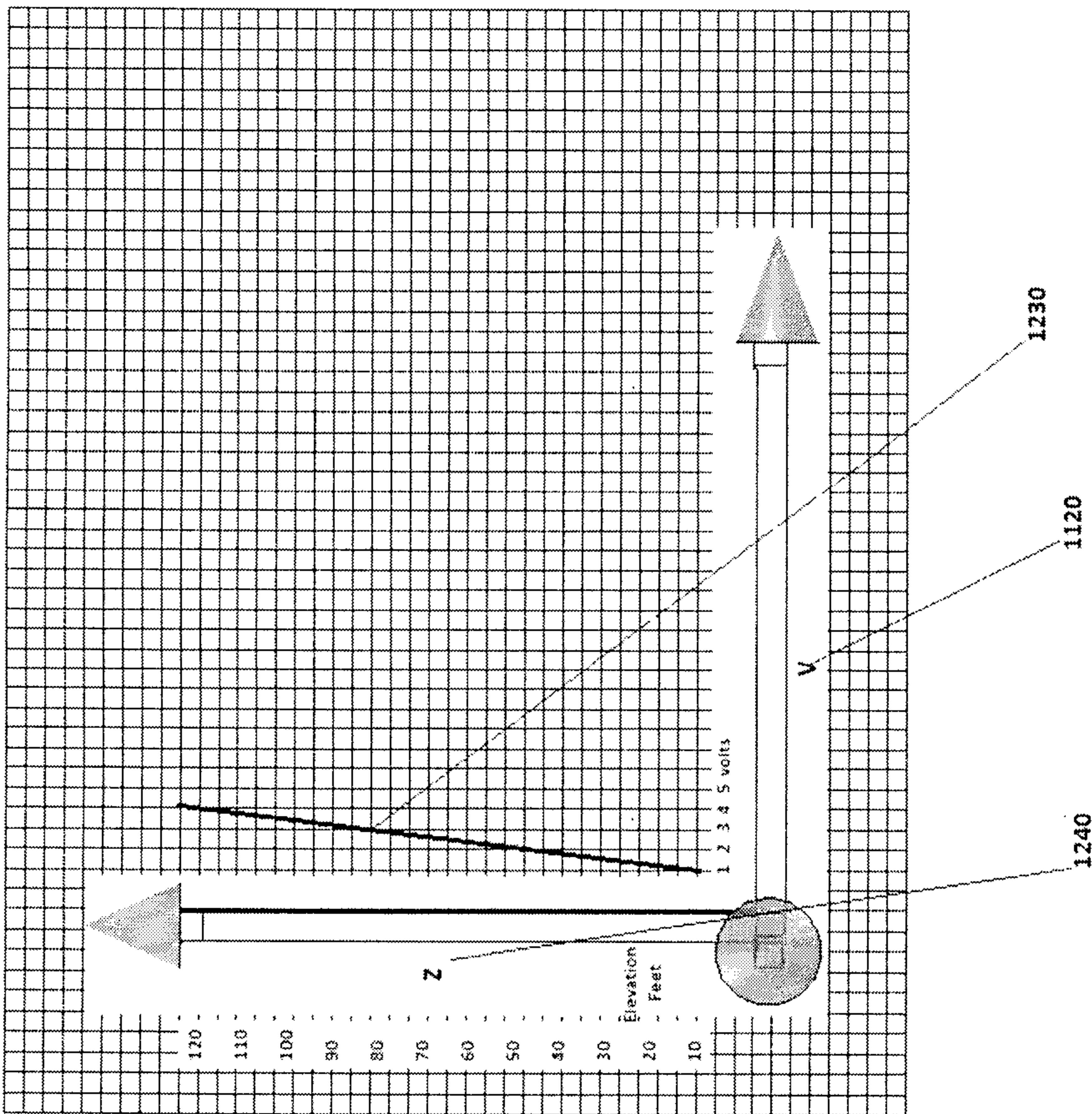


Figure 9



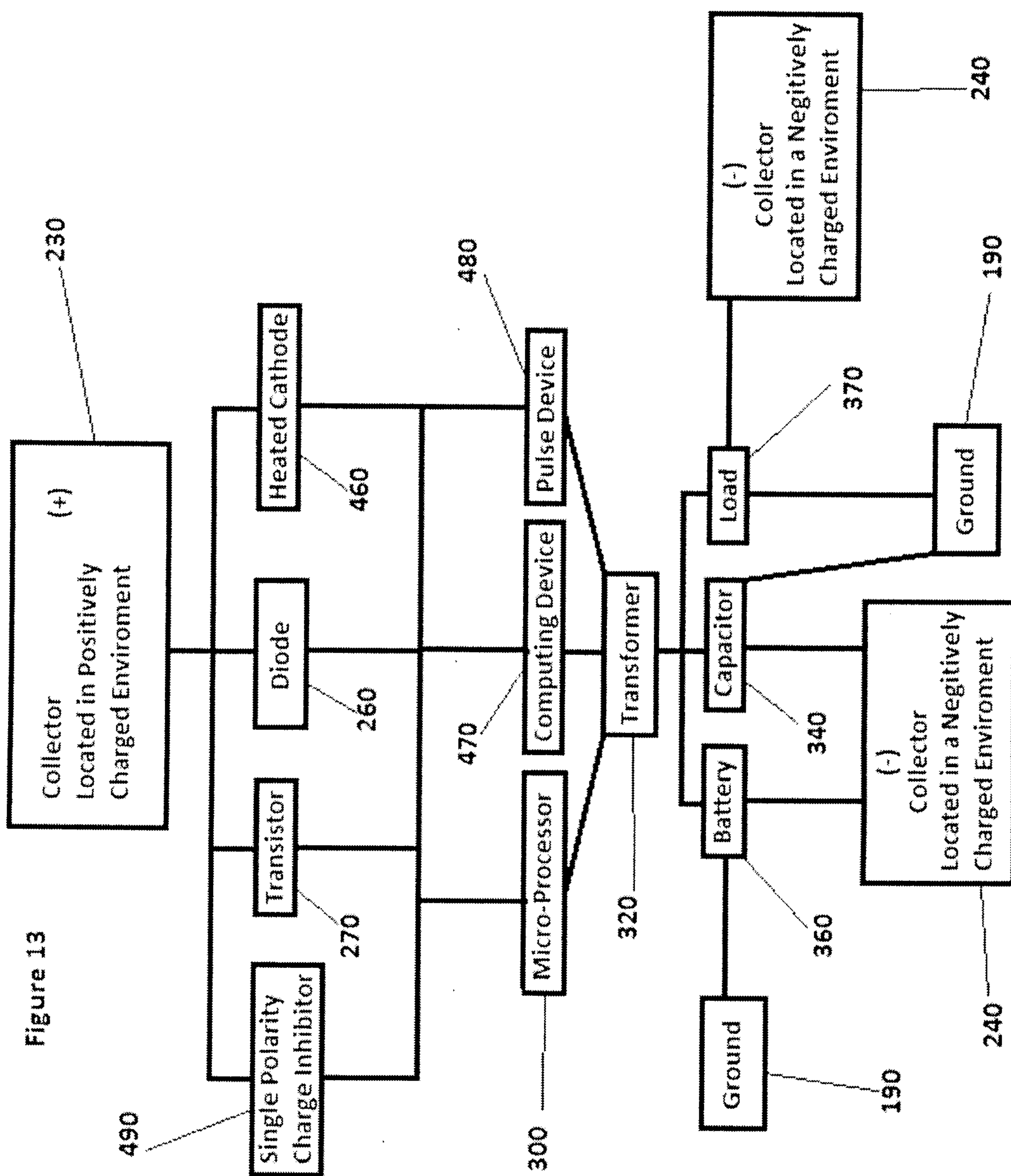


Figure 14

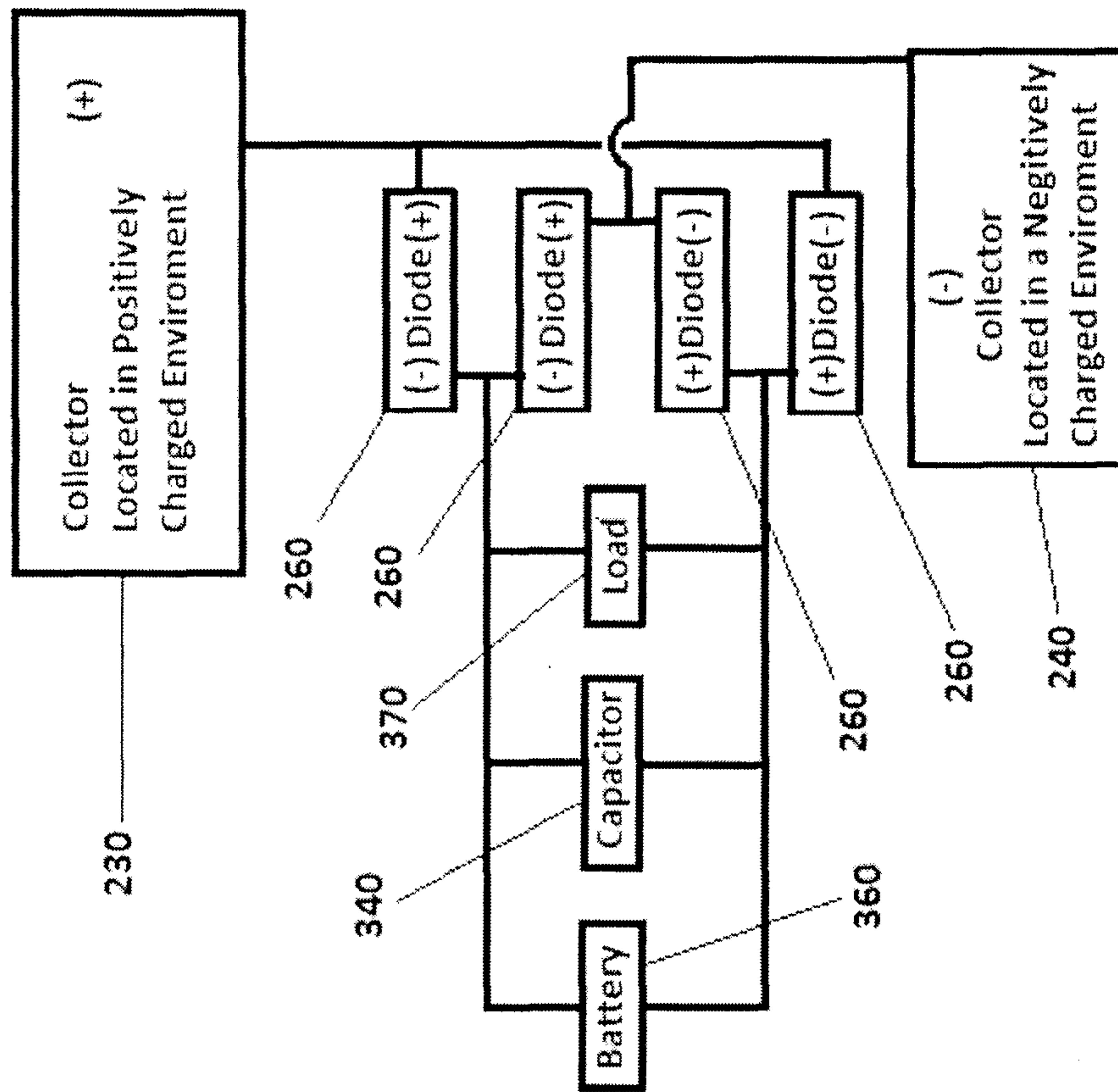


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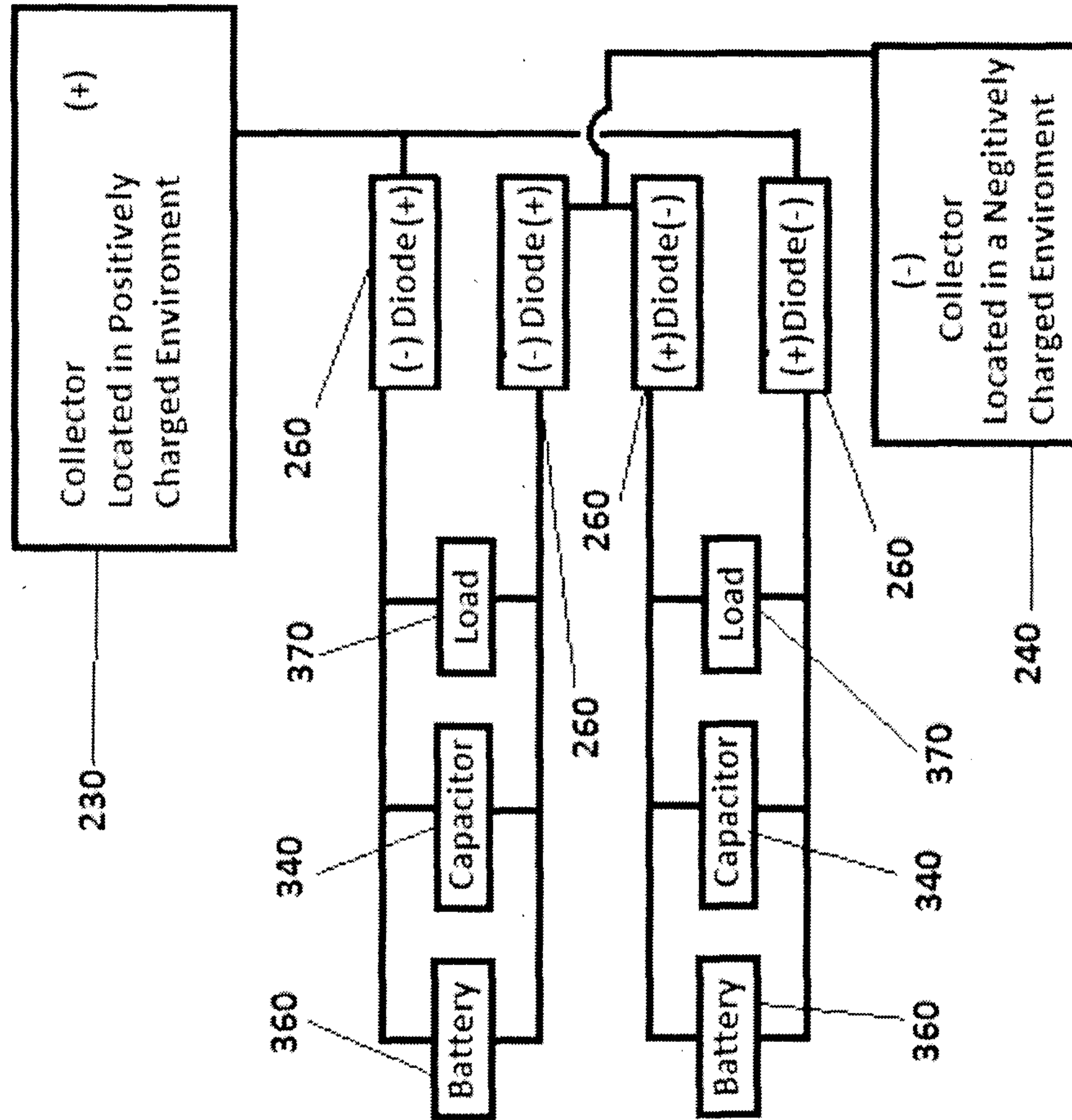


Figure 16

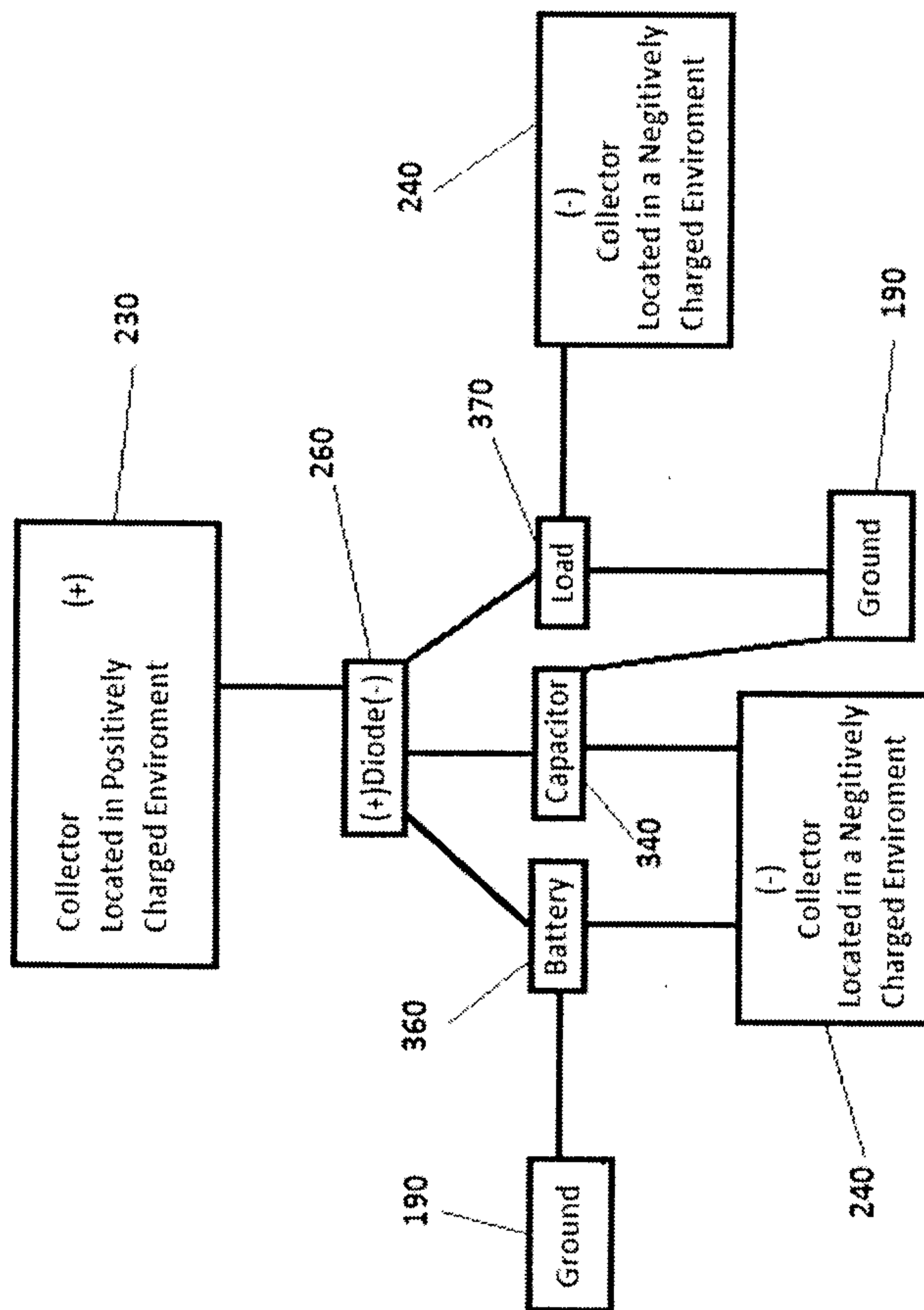


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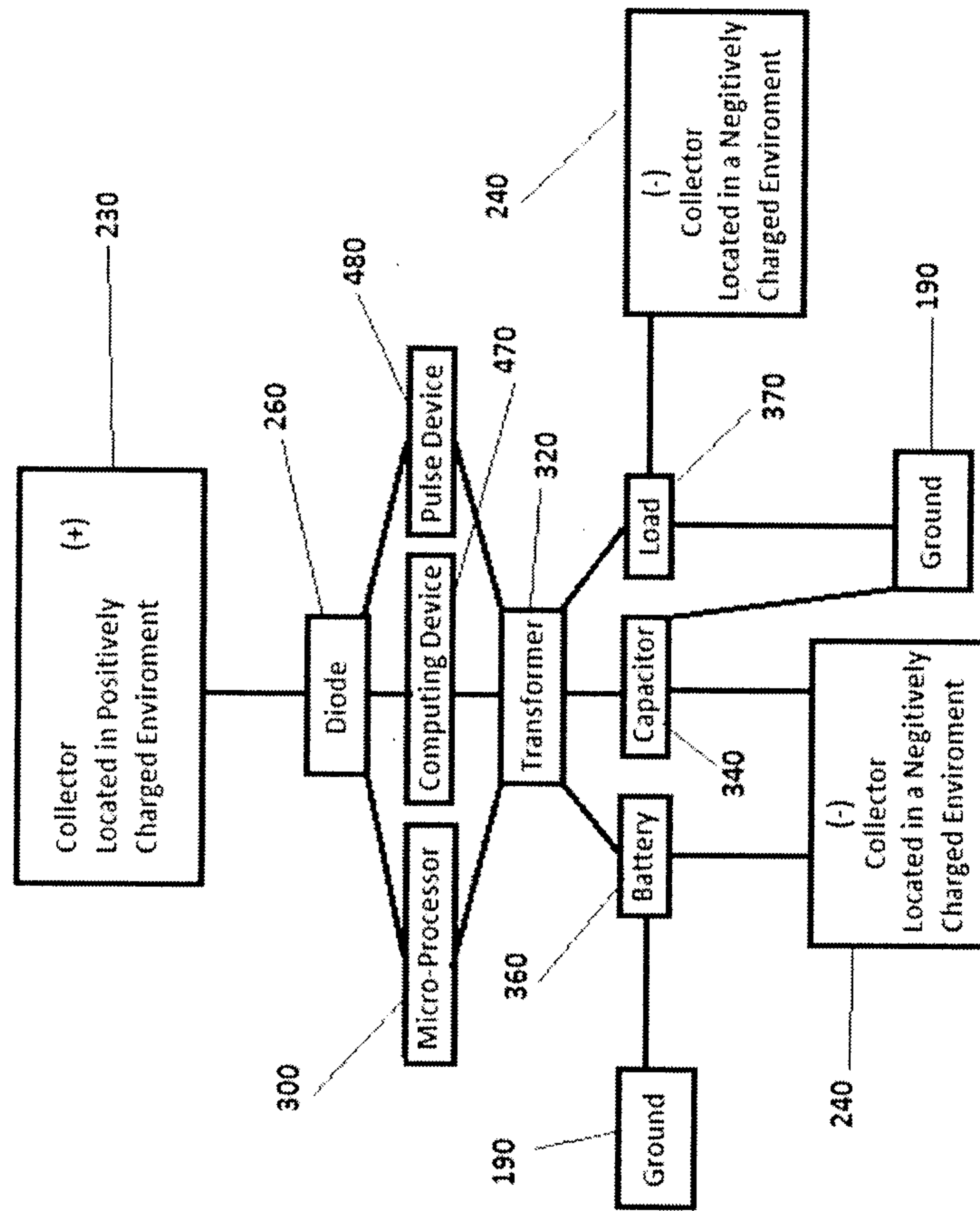


Figure 18

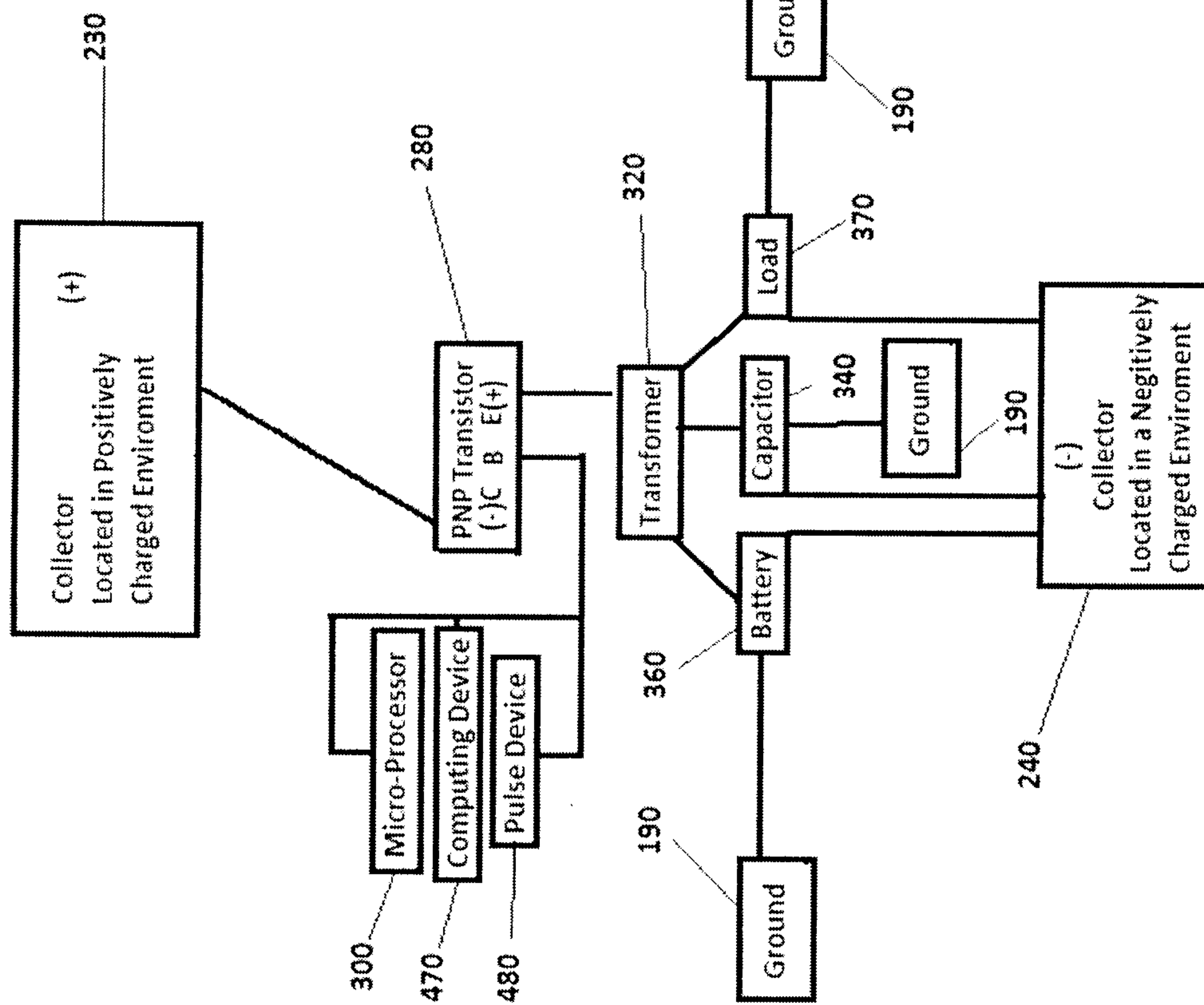


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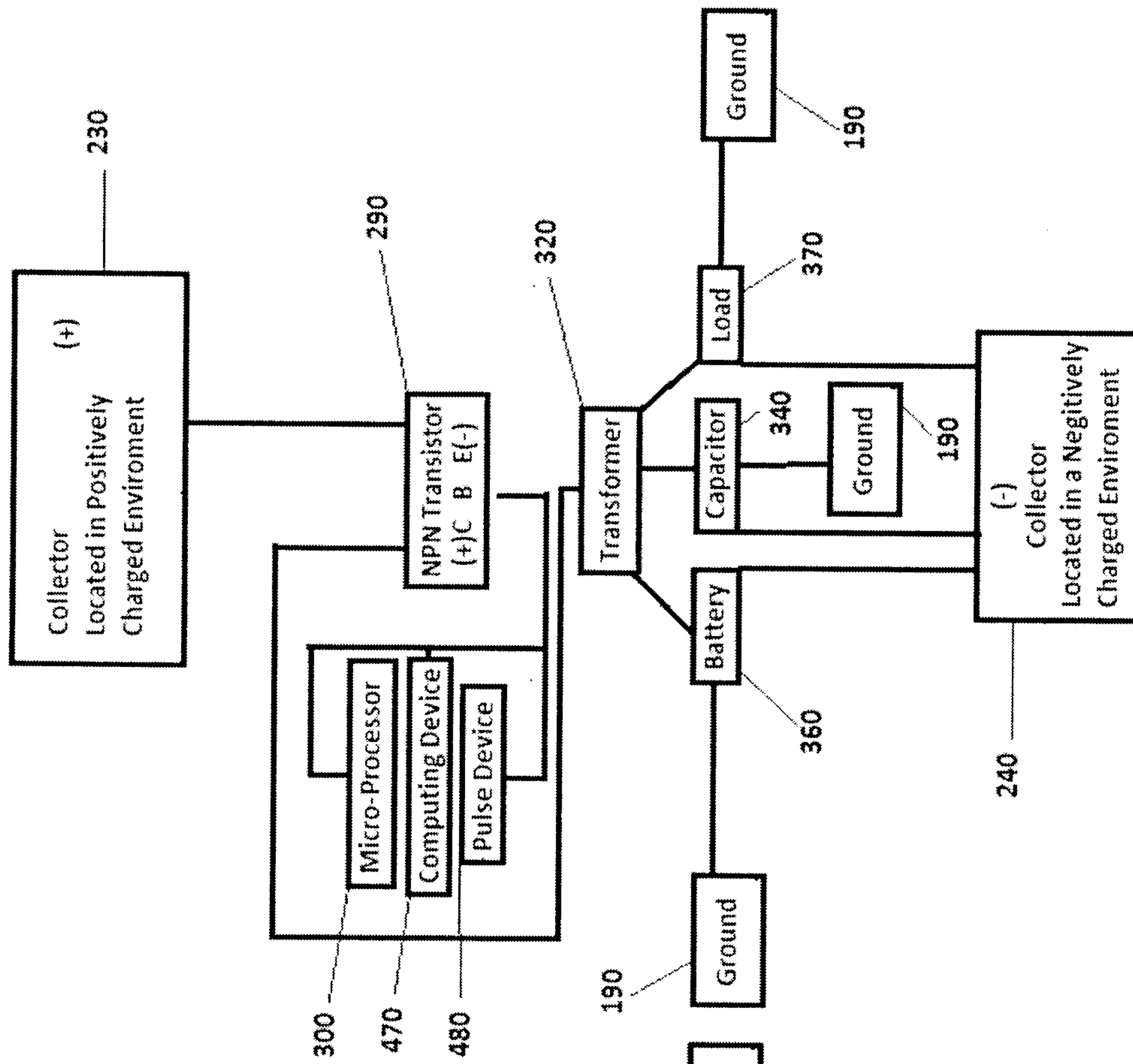
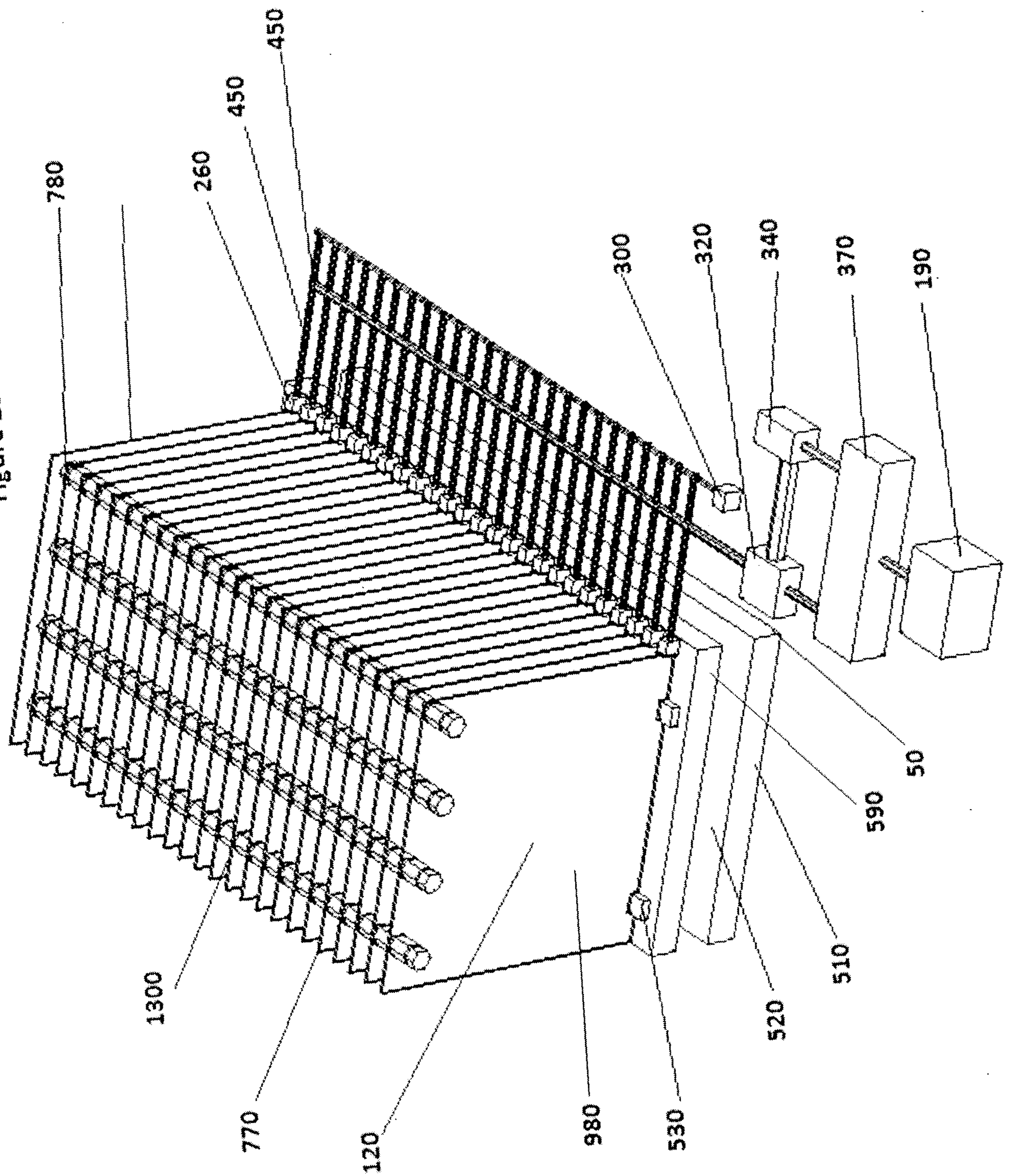


Figure 20



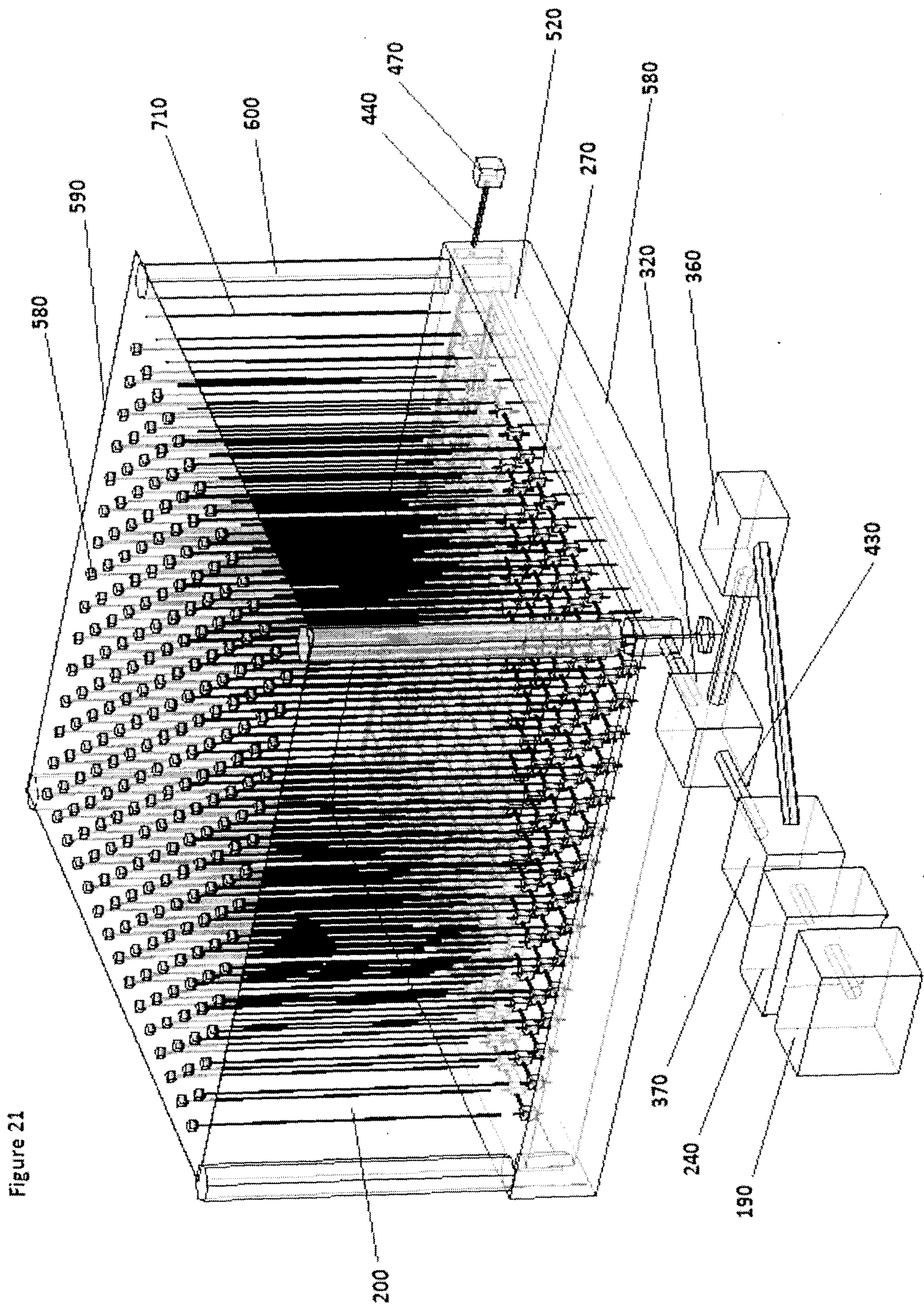
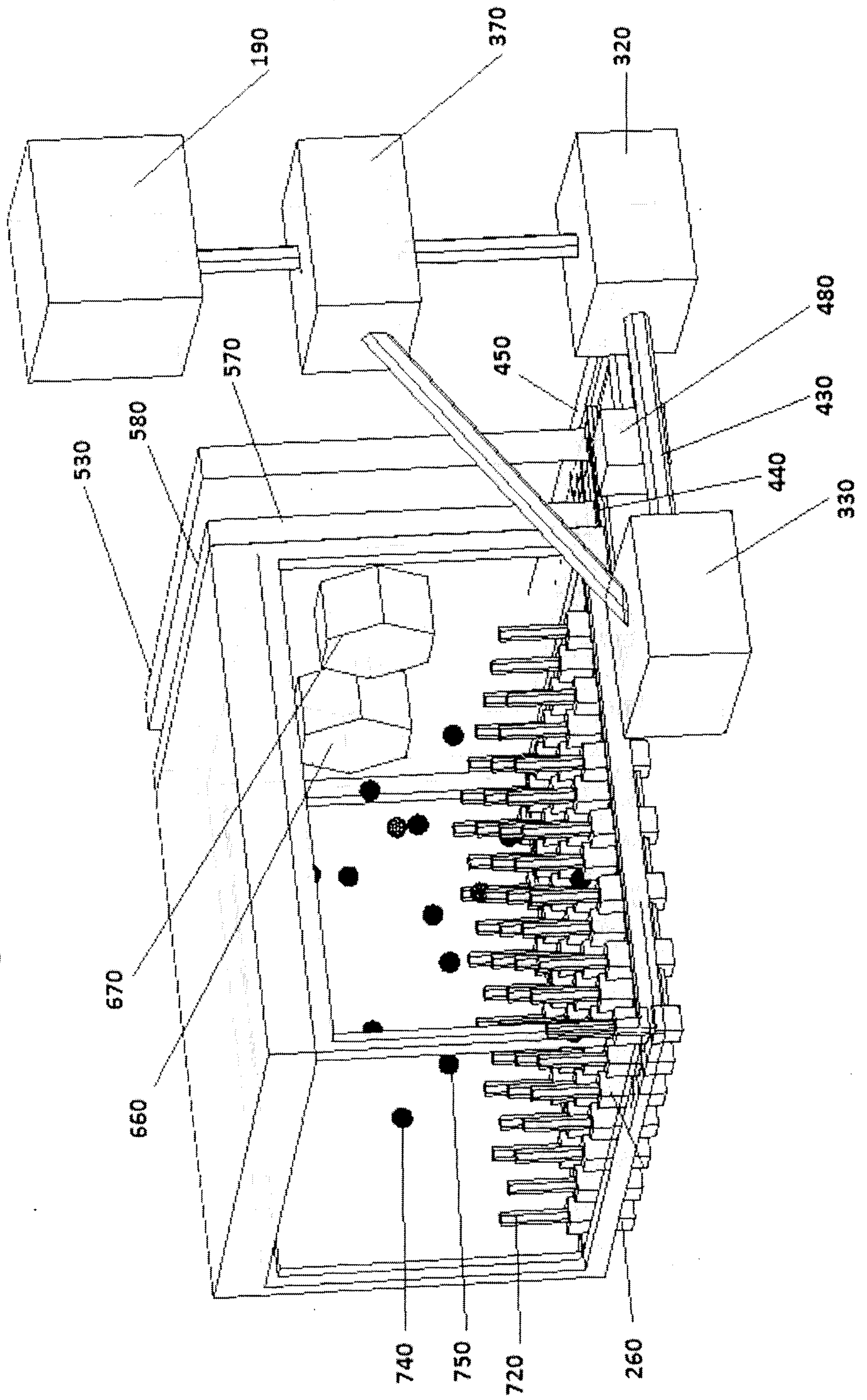
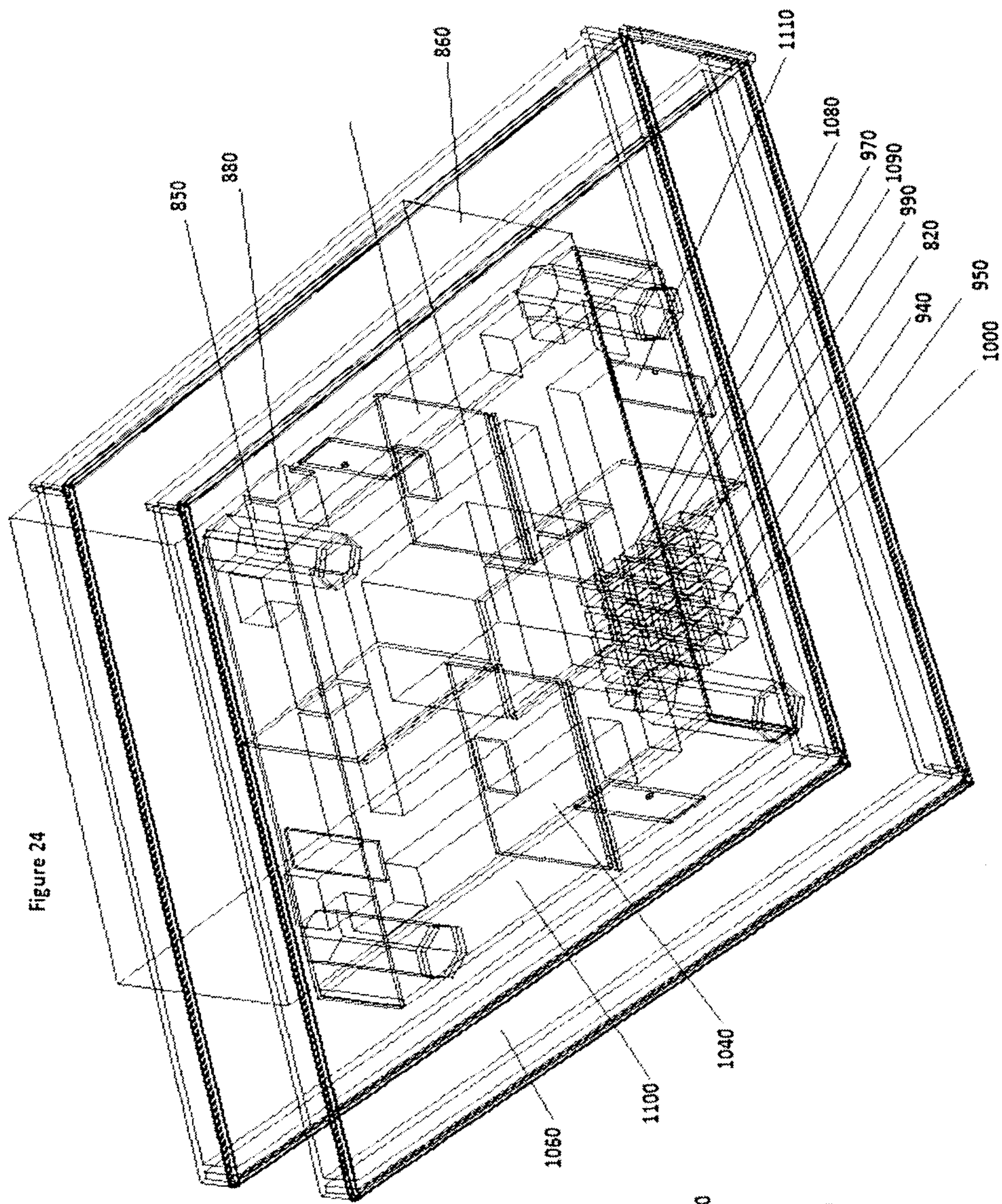
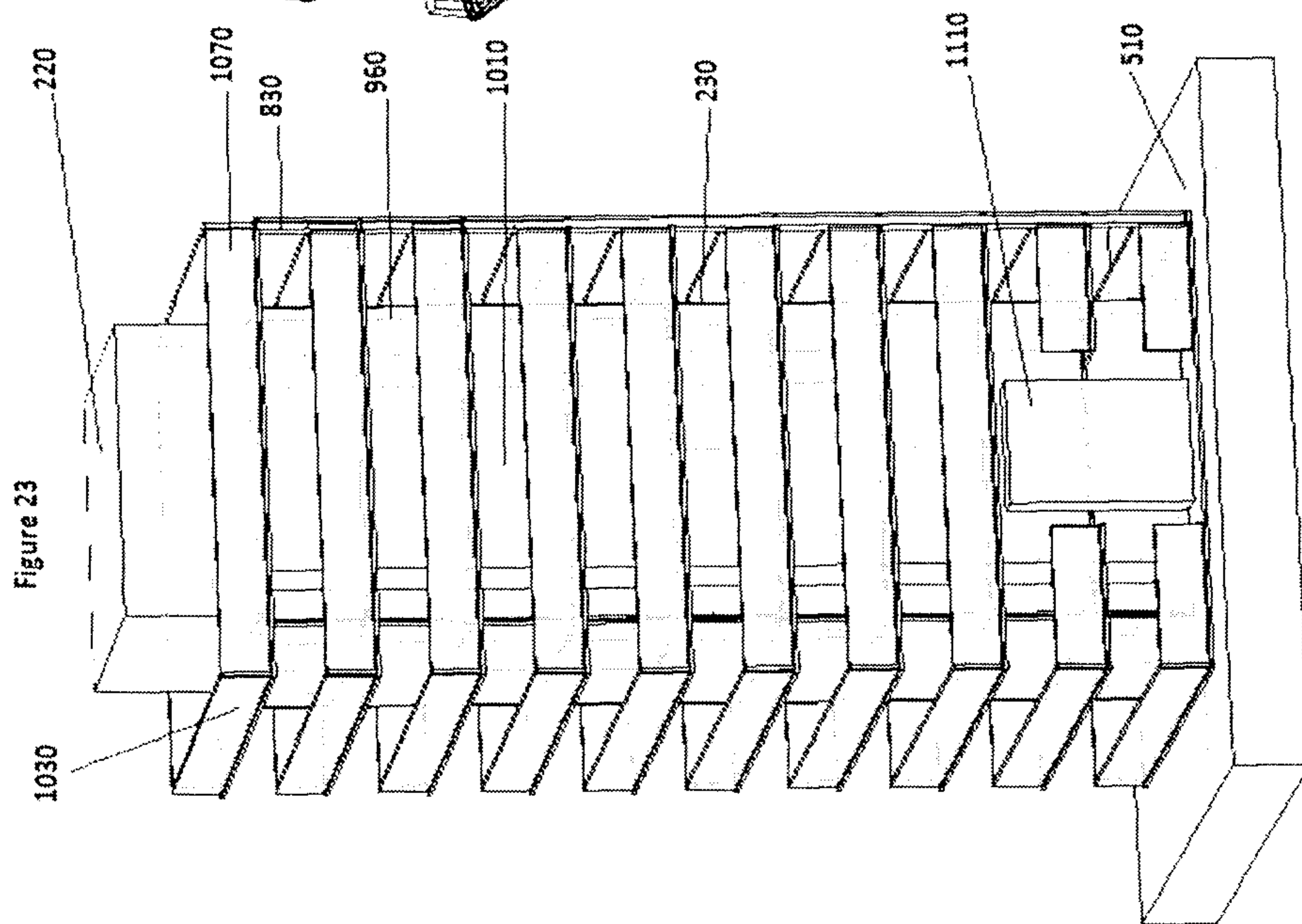


Figure 22





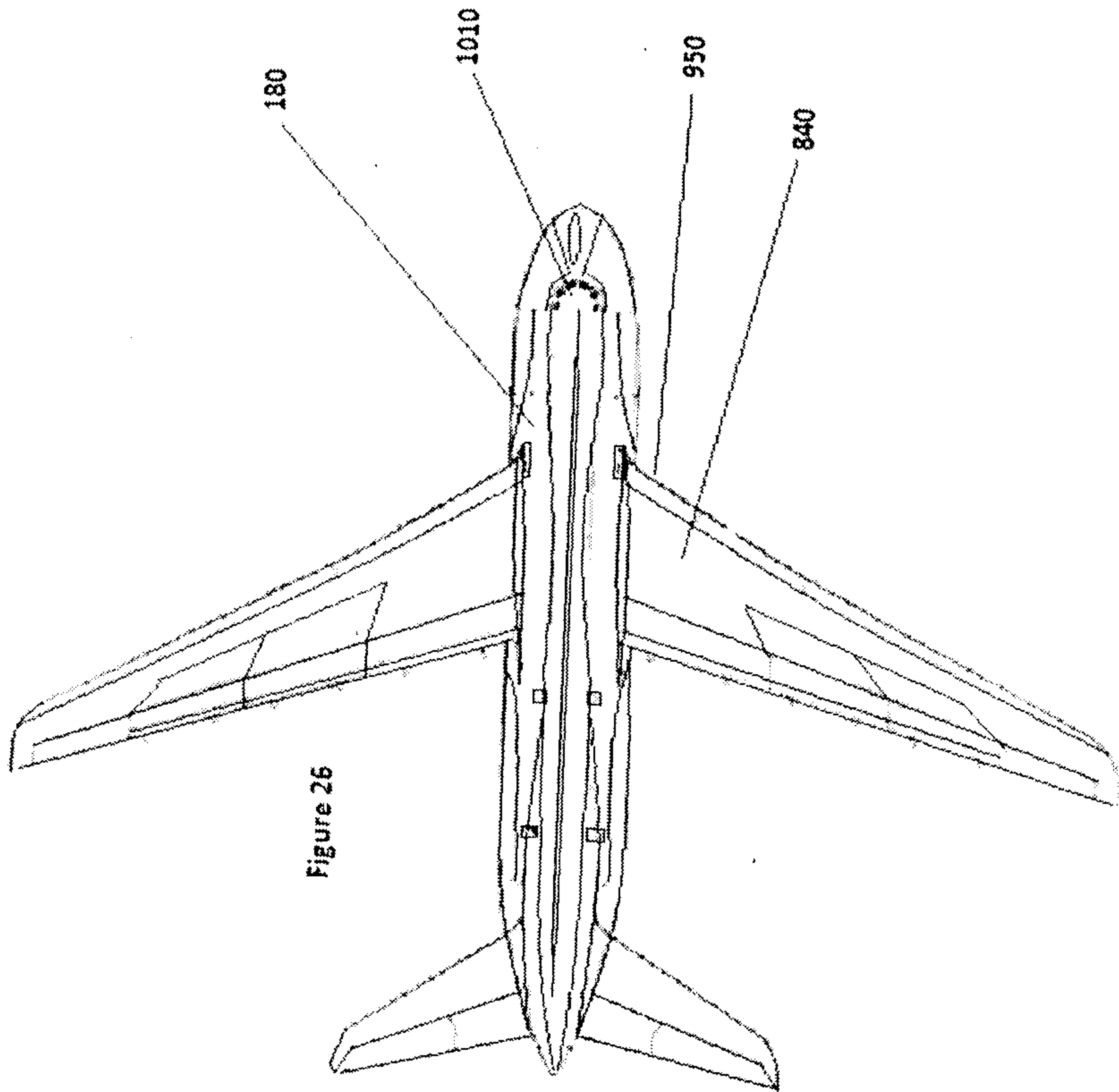


Figure 26

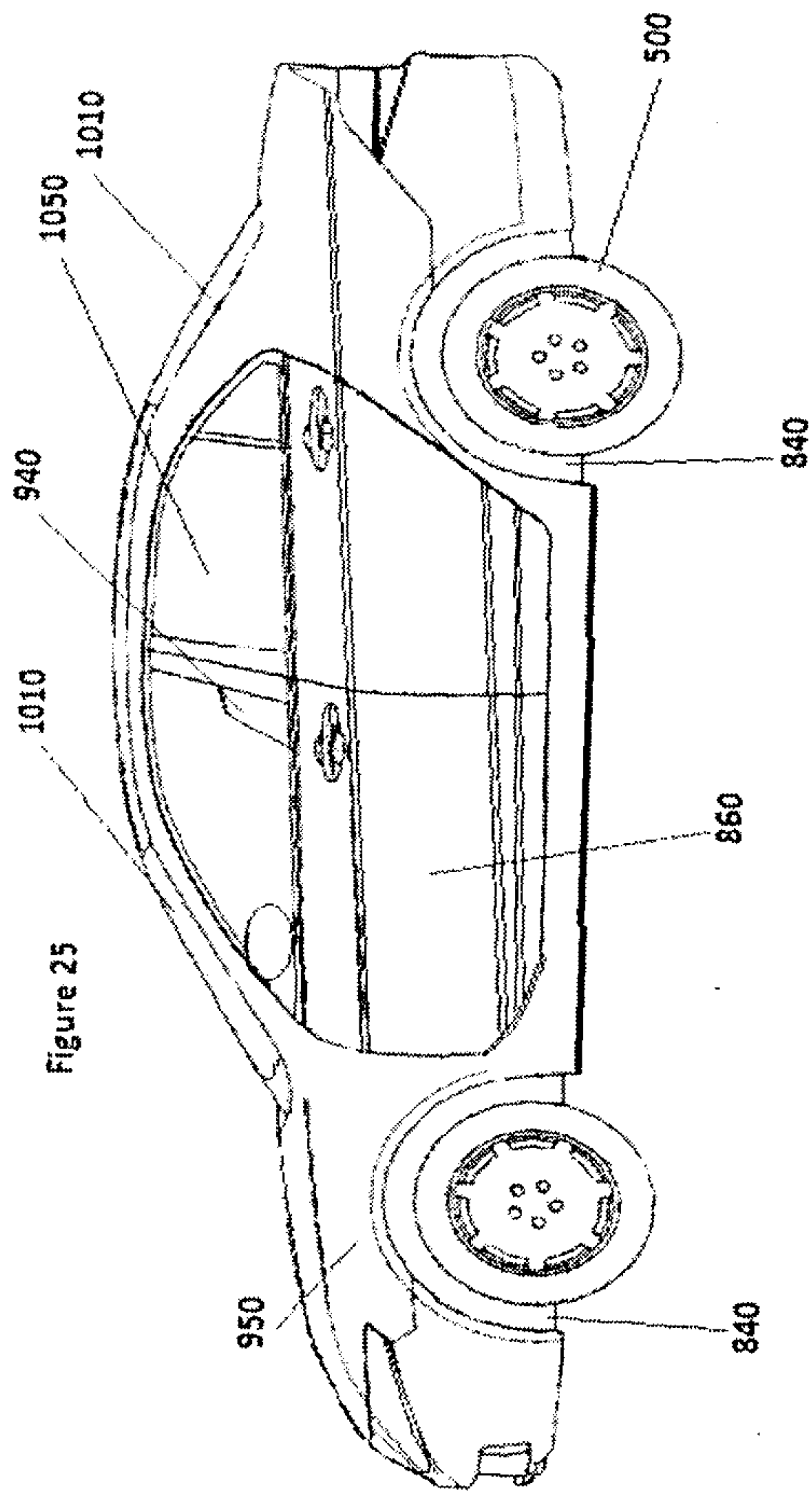


Figure 25

Figure 27

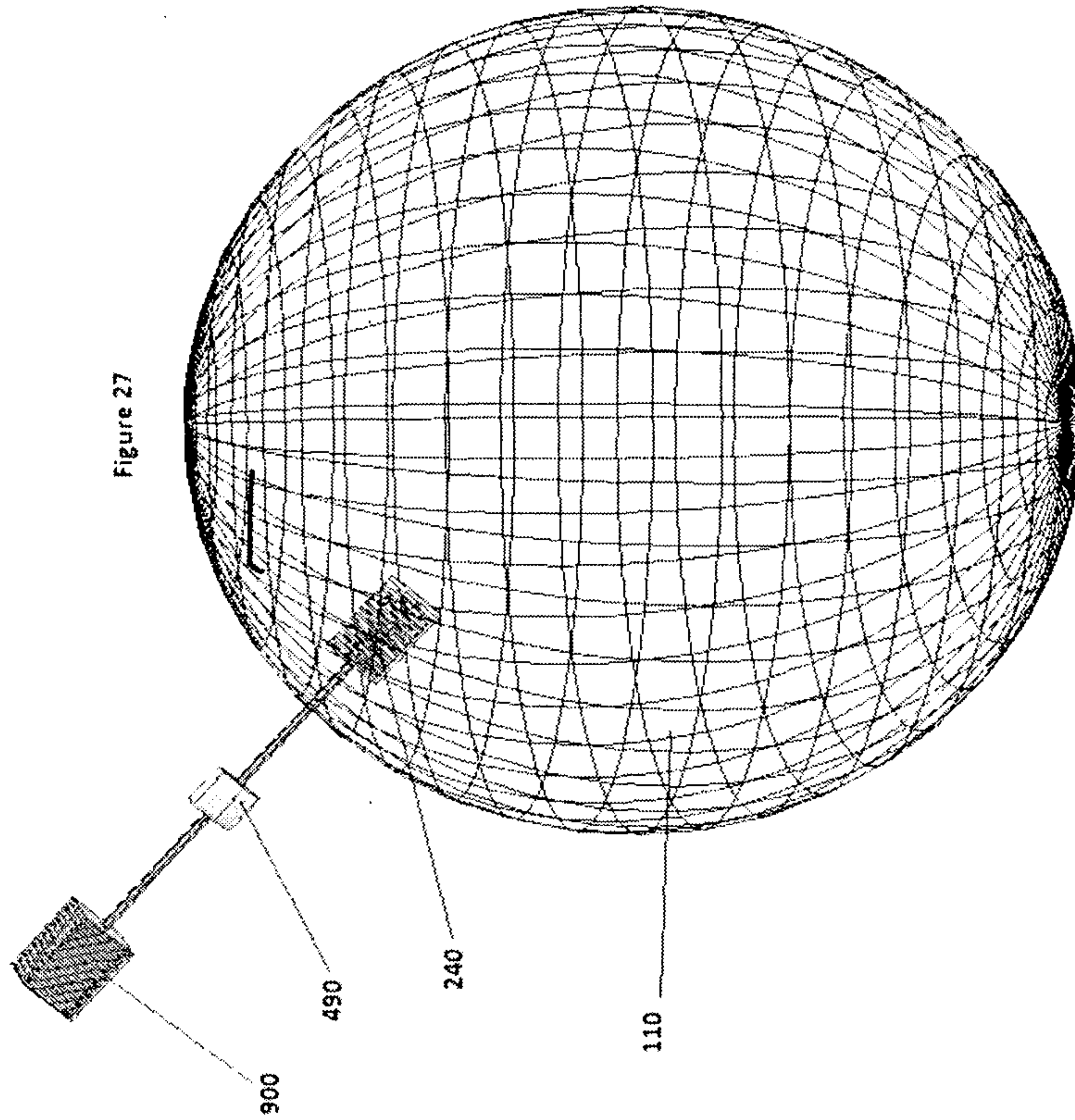
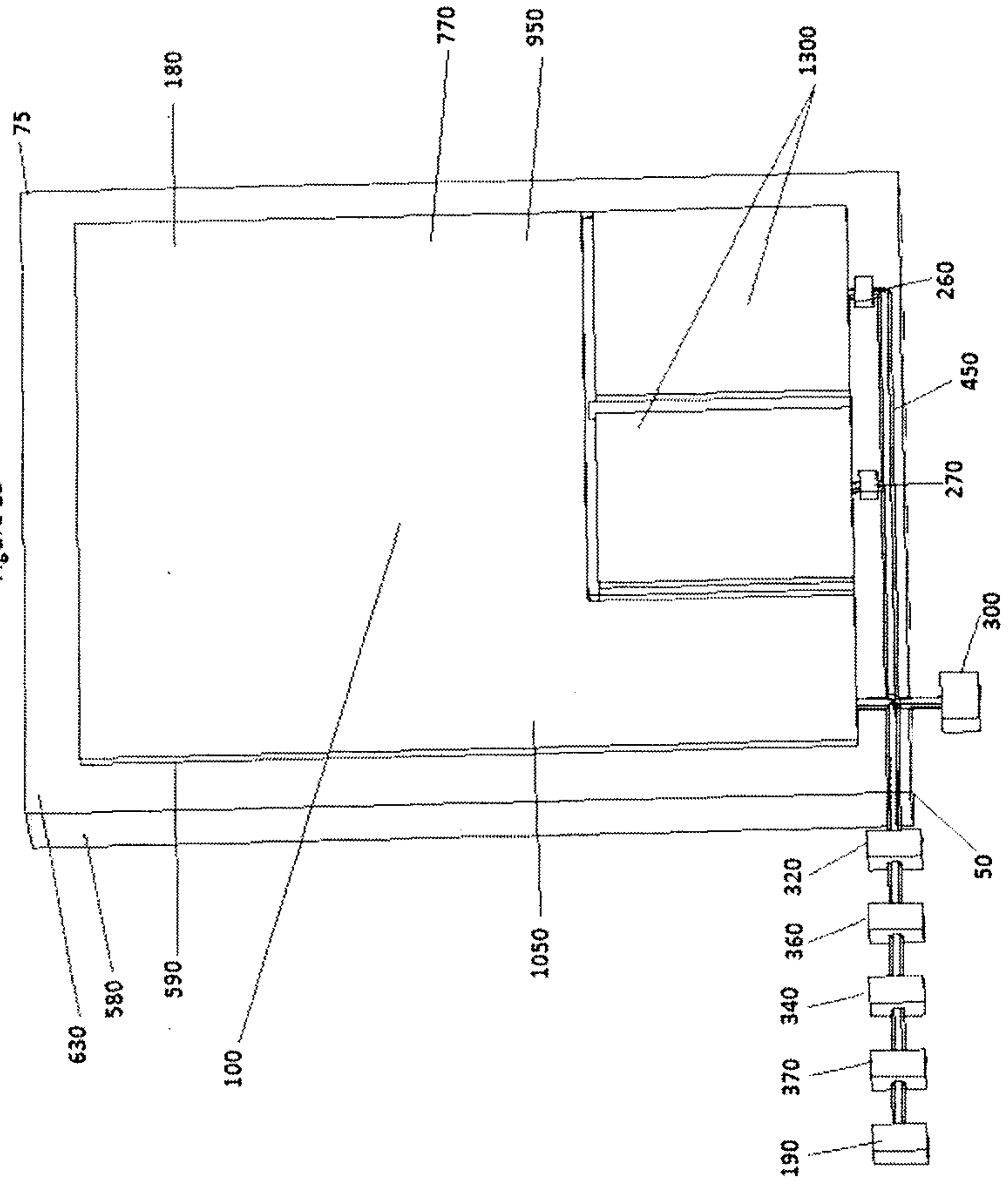
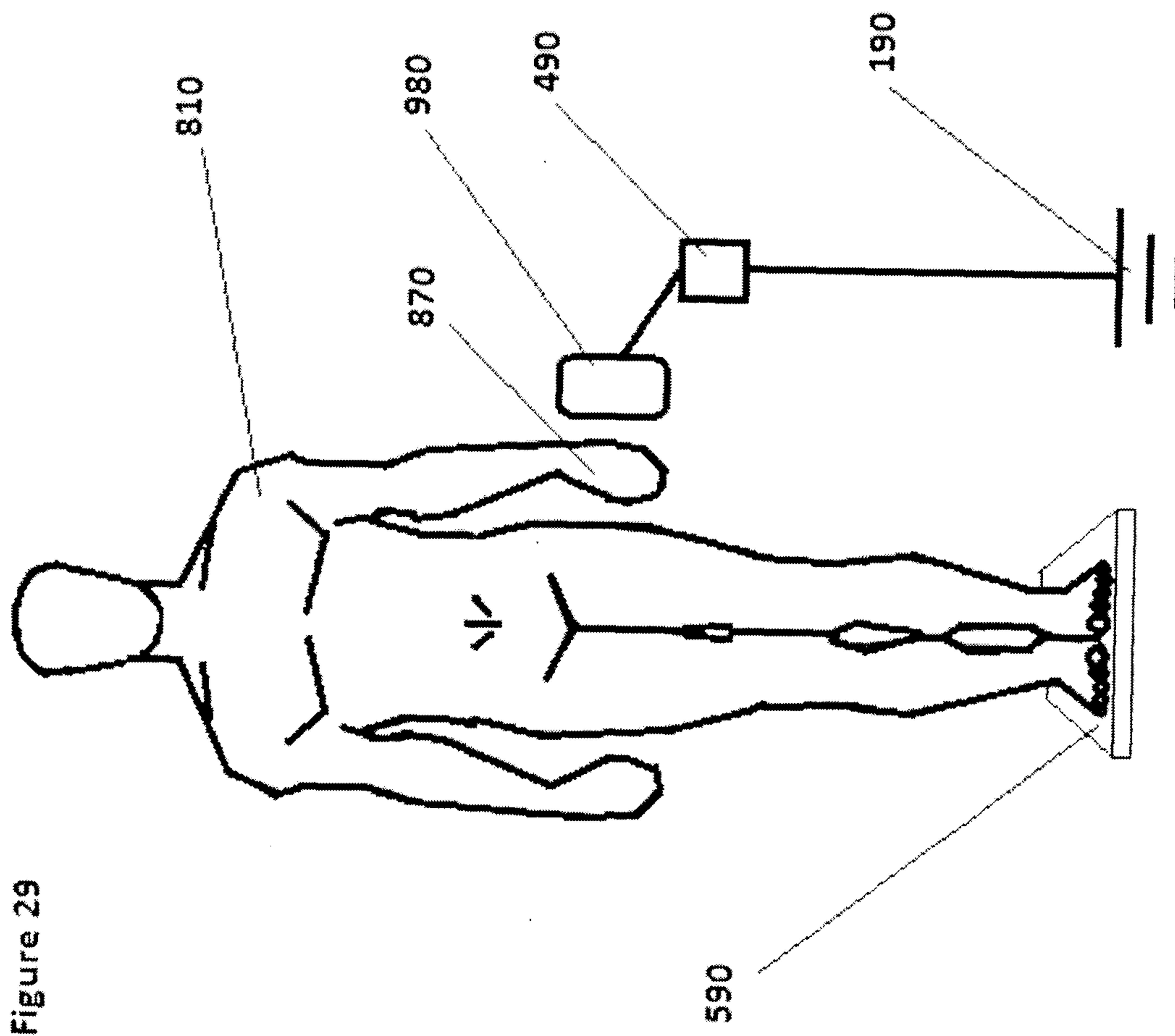


Figure 28





June 29

