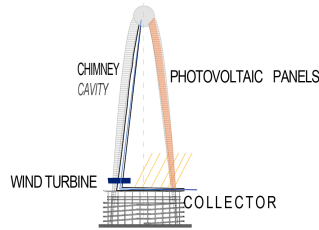
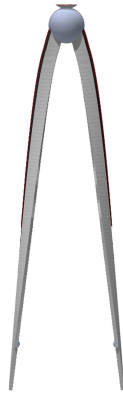


SUSTAINABLE SOLAR ARCH

MADRID ARCO SOLAR

THE SUSTAINABLE SOLAR ARCH IS A PROJECT DEVELOPED BY PROFESSORS AND PHD CANDIDATES AND ARCHITECTS OF "TISE" AT POLYTECHNIC UNIVERSITY OF MADRID RESEARCH GROUP. THE PROJECT KNOWN AS "MADRID ARCO SOLAR (M.A.S.)" IS BEING DEVELOPED AS A SUSTAINABLE LANDMARK IN A DOUBLE PARABOLIC ARCH OF 300 M HIGH THAT COMBINES FUNCTIONALITY, SPATIALITY AND SUSTAINABILITY; ALSO, M.A.S. IS TOPPED SUPERIORLY BY A REVOLVING RESTAURANT ON THE KEYARCH WHICH ALLOWS TO OBSERVE THE DOWNTOWN FROM THE SKY; M.A.S. IS ALSO DESIGNED AS A SUSTAINABLE URBAN NEXUS THAT IT'LL BE ABLE TO SOLVE URBAN

- 1) SUSTAINABILITY, WHICH M.A.S. REPRESENTS A COMPLETE SUSTAINABLE ENERGY PATHWAY FROM SOLAR RADIATION BY CHIMNEY EFFECT AS A RIGHT USE OF PHOTOVOLTAIC PANELS.
- 2) TECHNOLOGICAL BUILDING AND FORMAL INNOVATIONS
- 3) URBAN SOLUTION THAT REPRESENTS THE M.A.S. ITSELF, THE BUILDING WILL BE LOCATED NEXT TO TEH MANZANARES RIVER, THE BEGINNING OF THE SO CALLED "DIAGONAL DEL SOL" AT MADRID



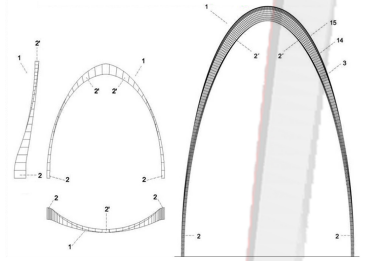
M.A.S. AND CHIMNEY EFFECT

THE CHIMNEY EFFECT IS BASED ON THE EXPERIMENT CONDUCTED IN 1982 AT "TORRE EÓLICO-SOLAR DE MANZANARES" EN CIUDAD REAL (SPAIN). SOLAR RADIATION HEATS THE AIR FLOWING UNDER A TRANSPARENT COLLECTOR "GREENHOUSE PRINCIPLE" AND WITH ONE TURBINE THE AIR KINETIC ENERGY CONVERTS IN ELECTRICAL POWER

WRAPPED ARCH

PATENTE ES 2 394 835 B2

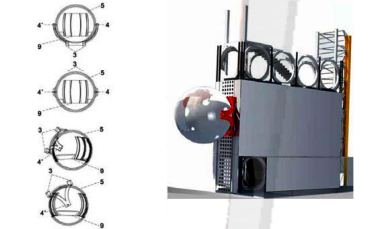
WRAPPED ARCH CHARACTERIZED IN THAT (1) IS SEMI ELLIPTICAL SHAPE NEAR ONE PARABOLE BECOMES MORE SPATIAL WARPING INERTIA, OBTAINED BY ROTATING THE SEGMENTS 90° (2) STARTUPS IN OPPOSITE DIRECTIONS RELATIVE TO THE SEGMENTS OF THE FRONT OF YOUR KEY (2), WHICH CONSIST OF RECTANGULAR MODULES (3) (3') ARE THREADED TOGETHER BY RESPECTIVE PAIRS OF RODS (7) (7'), IT HAS A SUBSTRUCTURE (14) (14') FOR FIXING SOLAR PANELS. (2013)



AUTO LEVEL LIFT

PATENTE ES 2 400 441 B2

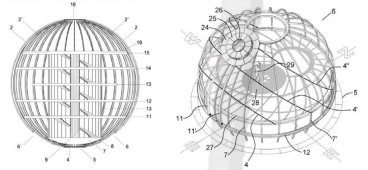
AUTO LEVEL LIFT IS CHARACTERIZED BY SPHERICLA (1) AND HAVING FLANGES (2) (2') WITH THREE AXES OF ROTATION SIMULTANEOUSLY (3) (3') (4) (5) (5'), THEY ARE ABLE TO KEEP THE VERTICAL OF ITS RATING, LOCATED WITHIN TWO CONCENTRIC SPHERES (6) (7) AND LEANDING OR SITTING ON THE BASE (9), WHATEVER THE SPATIAL TRAJECTORY OF THE FRAME GUIDE (0) WHERE IT'S FIXED THE LIFT ANF LEAVING IT ALTERNATELY SUPPORTED, CANTILEVERED OR SUSPENDED, AS APPROPRIATE.



SPHERICAL BUILDING

PATENTE ES 2 395 422 B2

SPHERICAL BUILDING IS CHARACTERIZED BY A SET OF DOUBLE CIRCULAR SECTORS (2) (2') HOLDING THE GLAZING (3) (3') LEAVING AN INTERMEDIATE VENTILATION CAVITY AND CONDITIONING AND FLOW INTO A LOWER POLE RING (4), CONCENTRING WITH A CLOSING (5) AND ANOTHER UPPER (16) AND IT'S DIVIDED INTO FIVE CONCENTRIC LEVELS MERIDIANS (11-15) OF DIFFERENT SURFACE. (2013).



ELLIPTICAL SOLAR TRACKER

PATENTE APPLIED FOR APPROVAL BY OEPM

ELLIPTICAL SOLAR TRACKER IS CHARACTERIZED BY FOLLOWING THE PATH OF THE VIRTUAL ECLIPTIC (1) ON EACH DAY AND TIME OF YEAR (4) (4'), ESTABLISHED ON A LIVING AREA (6) CONSISTING OF MERIDIANS NERVES (7) (7') AND PARALLEL (8) (9) (10) HAVING A SPHERICAL FIELD OVERLAY (11) (11') ROTATING HORIZONTALLY, IT'S SUPPORTED BY A LOWER RING GEAR (12) AND AN UPPER RING GEAR (13) WITH AN UPPER GEAR AND OTHER LOWER ONES



"MADRID ARCO SOLAR M.A.S. IS ONE LANDMARK AND IT IS COMMITTED TO THE DEMAND FOR A RESPONSIBLE AND COMMITTED ARCHITECTURE THAT RESPONDS FAVORABLY TO IMPROVED ENVIRONMENTAL CONDITIONS AND LOWER ENERG CONSUMPTION, OFFERING A COSMOPOLITAN METROPOLIS RENEWED MADRID AS A NEW REPRESENTATIVE SYMBOL THAT BRINGS THEIR VALUES AND RECORD IN THE GLOBAL COLLECTIVE CONSCIOUSNESS ALSO GENERATING NEW DESIGNS ABLE TO MEET THE CURRENT NEEDS OF WELL BEING WITH LESS ENERGY IMPACT."