



New connection on: : 12-09-2018 : 02:17:12 - Last disconnection on: : 12-09-2018 : 01:58:07

V 4.0.0.44358(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201802)) (RPM D201802)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 11] ..fi epodoc

+ Database: EPODOC

[EPODOC: SS 11] (two 2d roof*) and (column* near support)

Results in EPODOC 0

EPODOC: term 'ROOF*' not found in index 'BI'. WARNING(1)

+ 1 similar messages

[SS 12] (two 2d roof+) and (column+ near support)

Results in EPODOC 0

EPODOC: No term found in index 'BI' for the truncation 'COLUMN+ NEAR SUPPORT'. WARNING(401)

[SS 13] (two 2d roof+) and (column+ d5 support)

Results in EPODOC 0

EPODOC: No term found in index 'BI' for the truncation 'COLUMN+ D5 SUPPORT'. WARNING(401)

[SS 14] (two 2d roof+) and (column+ 5d support)

Results in EPODOC 103

[SS 15] E04B8/C/LOW

Results in EPODOC 0

EPODOC: term 'E04B8' not found in index 'C'. WARNING(1)

[SS 16] E04B9/C/LOW

Results in EPODOC 20.235

[SS 17] 14 and 16

Results in EPODOC 0

[SS 18] 14 and PD<2017-06-20

Results in EPODOC 62

[SS 19] ..v

[EPODOC: SS 19] ..li 52-62



52/62 © EPODOC / EPO

PN - [CN201288387Y](#) Y 20090812

PR - CN20082165888U 20081014

AP - CN20082165888U 20081014

DT - I

PA - UNIV ZHEJIANG [CN]

TI - Building fireproofing mechanical switching device capable of opening by self-weight

AB - The utility disclose a fire-proof machinery open-close device opened by self-weight. **Two** fixed **roofing** are separately inclined on the fixing **support columns** at both sides; two sides of incline of each fixed roofing are provided with a set of linear guide rail wherein upper segment friction coefficient is smaller than that of lower segment; the two set of linear guide rail are separately connected with the sliding roofing; upper end of bottom surface of **two** sliding **roofings** are separately connected with one end of connection board; another end of two connection boards are connected by connection device; **two** sliding **roofing** intersects on the top. When fire occurs, the roofing opens actuated by drive device to make smoke ascending, emitting out of building, thereby reducing influence of smoke to people therein, simultaneously facilitating rescuing and fire distinguishing; the roofing also possesses aeration and lighting function, wind and snow resistance, rain-proof and water drainage function. The highly reliable device opens no more than 45 s without drive source as electricity and machinery.

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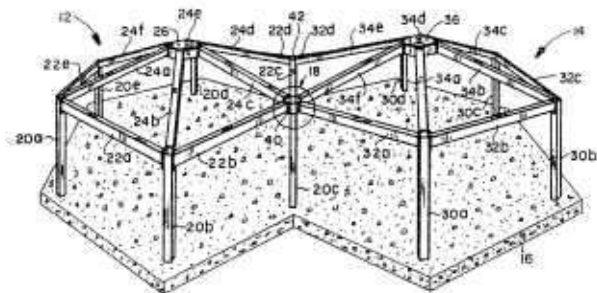
PN - [US5088245](#) A 19920218

PR - US19900564059 19900807

AP - US19900564059 19900807

DT - *; Rep

CT - || STSE (A)
[US2270161](#) A 19420113 [
] (HUNTER BRIGGS MARTIN);
[US2461916](#) A 19490215 [
] (GOICOECHEA OMAR
ALEJANDRO);

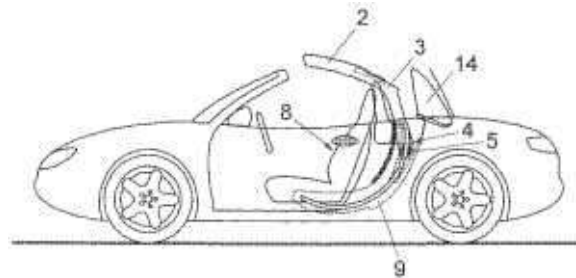


[US2678488](#) A 19540518 [
] (ERZER JOHN K);
[US2959256](#) A 19601108 [
] (DEAM ARTHUR F);
[US3177618](#) A 19650413 [
] (JACOB BART M);
[US3308596](#) A 19670314 [
] (COOPER MERLE D, et al);
[US3462895](#) A 19690826 [
] (WORMSER ROBERT S);
[US3562975](#) A 19710216 [
] (MOSS CHARLES W);
[US3810342](#) A 19740514 [
] (SCOTT H);
[US3974602](#) A 19760817 [
] (POHL ROBERT, et al);
[US4011697](#) A 19770315 [
] (FEDOLFI JAMES L);
[US4078341](#) A 19780314 [
] (PETERSON EMMETT G, et al);
[US4125973](#) A 19781121 [
] (LENDRIHAS GEORGE);
[US4187651](#) A 19800212 [
] (TOLSMA AUKE [NL]);
[US4271654](#) A 19810609 [
] (JUNGBLUTH OTTO);
[US4275534](#) A 19810630 [
] (PORTER WILLIAM H);
[US4347690](#) A 19820907 [
] (WALLACE JR BRENTON G);
[US4395154](#) A 19830726 [
] (PHILLIPS MARTHA E [US], et al);
[US4575974](#) A 19860318 [
] (PORTER WILLIAM H [US]);
[US4630550](#) A 19861223 [
] (WEITZMAN HARRY L [US]);
[FR471236](#) A 19141020 [] (DES
 FILATURES CORDERIES ET
 TISSAGES D ANGERS [FR]);
[CH418613](#) A 19660815 [
] (FERDINAND HERZOG & CO AG
 [CH]);
[GB126492](#) A 19190515 [
] (WILLSON ERNEST ALFRED [GB],
 et al);
[GB142128](#) A 19210505 [
] (LIOUBICHA
 PRAPORTCHETOVITCH);
[GB2174430](#) A 19861105 [
]

	] (TARTAN BUILDINGS LIMITED)
CTNP	- STSE (A) [] - Cover.All Pre Engineered Carports and Shelters, Publication of Cover All, div. of W.H. Porter, Inc., 4240 N. 136th Ave., Holland, MI 49423, copyright Dec.1983.
CCI	- E04B1/2403 ; E04B1/3211 ; E04B7/028 ; E04C3/40
CCA	- E04B2001/0084 ; E04B2001/2406 ; E04B2001/3247 ; Y10T403/46
PA	- W H PORTER INC [US]
TI	- Interconnected hexagonal building structures
AB	- An arrangement for interconnecting and supporting a pair of hexagonal building structures includes a pair of common support columns each having a hexagonal shaped connector tube mounted to an upper end thereof. Each connector tube includes apertures in each of the six lateral walls thereof which are adapted for receiving a nut and bolt combination for coupling the tube to the eave beams and roof trusses of two hexagonal building structures. The nut and bolt combinations are hidden from view within the connector tube and adjacent beams to provide a clean, attractive appearance and are not exposed to the elements. The use of common support columns and a common eave beam for adjacent hexagonal building structures simplifies assembly, reduces the number of structural components and building cost, and integrates two or more of such building structure for increased structural strength.

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- PN - [US2005116494](#) A1 20050602
- PNFP - US7156446 B2 20070102
- PR - DE2002112573
20020312; WO2003DE00805
20030307
- AP - US20040507526 20040910
- DT - **
- CT - || STSE (B2)
[US1264804](#) A 19180430 [
] (JACOBS SYDNEY GORDON [GB])
[US2013314](#) A 19350903 [
] (METZ HEINZ O)
[US2057907](#) A 19361020 [] (LEO
NASAREVICH)
[US2782070](#) A 19570219 [
] (CHABAN JOSEPH M)
[US2785922](#) A 19570319 [
] (CHIKA JOHN J)
[US4543747](#) A 19851001 [
] (KALTZ MILTON C [US], et al)
[US4676524](#) A 19870630 [] (BALL
WILFRIED [DE], et al)
[US5056857](#) A 19911015 [] (NEY
CLYDE W [US], et al)
[US5078447](#) A 19920107 [
] (KLEIN GEORGE W [US], et al)
[US5265930](#) A 19931130 [
] (KLEIN BERTHOLD [DE], et al)
[US5558388](#) A 19960924 [
] (FUERST ARPAD [DE], et al)
[US5944378](#) A 19990831 [
] (MATHER CARL [US], et al)
[US6312042](#) B1 20011106 [
] (HALBWEISS THOMAS [DE], et al)
[US6318793](#) B1 20011120 [
] (RAPIN ROBERT R [US], et al)
[US6582009](#) B2 20030624 [
] (WEZYK WOJCIECH [DE], et al)
[US6669201](#) B1 20031230 [
] (GUILLEZ JEAN-MARC [FR], et al)
[US6672658](#) B2 20040106 [] (DE
GAILLARD FRANCOIS [FR])
[US6676192](#) B2 20040113 [
] (MAROLD ADOLF [DE], et al)
[US6808222](#) B2 20041026 [
] (QUINDT REINHARD [US])



	US6827392 B2 20041207 [] (DONCOV STEPHEN [US], et al) US2004041434 A1 20040304 [] (GUILLEZ JEAN-MARC [FR])
	- R141 (A1) US5078447 A []; US6672658 B2 []; US6676192 B2 []; US2191269 A []; US2782070 A []; US2785922 A []; US2004041434 A1 []; US1264804 A []; US4676524 A []; US6582009 B2 []; US5944378 A []; US2013314 A []; US5558388 A []; US2057907 A []; US4543747 A []; US5056857 A []; US6808222 B2 []; US5265930 A []; US6312042 B1 []; US6318793 B1 []; US6669201 B1 []; US6827392 B2 []
CCI	- B60J7/20 ; B60J7/223 ; B60J1/183 ; B60J7/0076 ; B60J7/028
TI	- (A1) Retracting roof for a passenger motor vehicle, particularly hard roof for two-seated or several-seated cabriolets, roadsters, or similar - (B2) Hard-top convertible roof
AB	- (A1) The invention relates to a retracting roof (1) for passenger motor vehicles, particularly a hard roof for two-seated or multiple-seated cabriolets, roadsters, or similar, comprising a dimensionally stable shell which is provided with a roof part (2) and rear support

columns (3) that are connected to the roof part at an obtuse angle, a rear window (11) for a window opening, and a separate first and second stowing space (9) which is disposed immediately behind the seats perpendicular to the longitudinal axis of the vehicle and into which and out of which the roof part (2) with the **support columns** (3) and the rear window (11) can be moved by guiding means and driving means. The roof part (2) and the **support columns** (3) thereof are forcibly guided in a kinematic manner along a guideway (6). The aim of the invention is to improve said retracting roof (1) in such a way that the structure obtains the required stiffness at a lower weight and in a compact construction while making said roof (1) smooth-running and mechanically simple and operable. Said aim is achieved by extending the first stowing space (9) all the way to the area located lateral to the seating unit (8) along a curve that is generated correspondingly by the downward and upward movement of the roof part and **support columns**. The rails (6) which are mounted in a fixed manner on the body structure parallel to the longitudinal axis of the vehicle by means of vertical support plates (7) form guiding devices for the **support columns** (3), said guiding devices running laterally past the seating unit (8) within the stowing space. The **support columns** (3) are guided on the rails (6) by means of guide blocks (5) which are disposed

at the ends thereof.

- (B2)

A convertible motor vehicle first and second storage compartments extending transversely behind a seat. A rigid **roof** shell has **two** posts defining a rear opening. The first compartment extends laterally forward past the seat. Guide rails extend laterally in the first compartment forward past the seat. Respective guide slides on the rear end posts ride on the guide rails, and the roof shell is displaceable along the guide rails between an up position wholly out of the first storage compartment and a down position wholly in the first compartment with the guide slides laterally flanking the seat. A rear windshield fits in the opening between the posts. A guide in the second storage compartment displaces the rear windshield between a lowered position in the second compartment and a raised position fitting between the rear end posts of the windshield in the up position thereof and closing the rear opening.

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PN - [RU2005119071](#) A 20061227

PNFP - RU2300608 C2 20070610

PR - RU20050119071 20050620

AP - RU20050119071 20050620

DT - I

PA - (C2)
G OBRAZOVATEL NOE UCHREZHDENIE [RU]; KHVATKIN JURIJ SEMENOVICH [RU];
DOBRACHEV VALERIJ MIKHAJLOVICH [RU]

TI - (C2)
TRANSFORMABLE ROOFING

AB - (C2)
FIELD: building, particularly roofing for stadiums, tennis courts and agricultural

objects, as well as to cover small villages in cold regions. ^ SUBSTANCE:
transformable **roofing** comprises **two** parts to be moved apart with the use of electric drives. The moving parts are made as structural panels provided with structural members at free ends thereof. The panels are free of intermediate **support columns** and have opposite **support** sides installed so that the sides may move along regularly arranged pylons. End sides of the panels slide along load-bearing structures. Electric drives are installed on ends of movable roofing parts. ^ EFFECT: decreased material consumption. ^ 5 dwg

56/62 © EPODOC / EPO

- PN - [KR100814633B](#) B1 20080318
- PR - KR20070032727 20070403
- AP - KR20070032727 20070403
- DT - I
- CT - || STSE (B1)
[JPH05239863](#) A 19930917 [] (NAKATANI TOSHIMARO);
[JP2001227183](#) A 20010824 [] (YAMADA YUKIO);
[KR200210561Y](#) Y1 00000000 [];
[KR200231094Y](#) Y1 00000000 [];
[KR200247854Y](#) Y1 00000000 [];
[KR200415656Y](#) Y1 20060504 []
- CNOI - [E04B7/02](#) ; [E04H1/1222](#)
- PA - KOREAN STYLE HOUSE DEV CO LTD [KR]
- TI - A TRADITIONAL KOREAN-STYLE HOUSE TYPE STREET PEDDLING SYSTEM
- AB - A traditional Korean-style house roof type stand is provided to promote the Korean traditional beauty of a rural market place and to make installation and dismantlement easy by forming in a traditional Korean-style house. A traditional Korean-style house roof type stand for utilizing the Korean traditional beauty and making installation and dismantlement easy comprises a stand support frame(100) forming an outside frame, a traditional Korean-style house roof structure(200) put on the upper part of the stand support frame, and a low bench(300) coupled to the stand support frame to be folded or unfolded. The stand **support** frame comprises two fixed **columns**(110) installed at two sides, a fixed cross bar(120) connecting the two fixed columns, a movable column(130) coupled to the fixed columns to be folded by each connection vertical bar(140), a roof support(160) projected upward from the center of the connection vertical bar to support the center of the Korean-style house roof structure, and a roof connection(180) formed on the top of the fixed column and the movable column, the Korean-style house roof structure comprises a roof frame body(210) forming a form to be folded at **two** sides, a **roof** plate(220) put on the roof frame body in the shape of a roofing tile, and a ridge cover(230) put on the center of the roof frame structure in the shape of the ridge of a roof, and the low bench is coupled to the fixed **column** of the stand **support** frame rotatively and provided with legs(310) installed to be foldable or detachable.

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PN - [GB2277944](#) A 19941116

PNFP - GB2277944 B 19961002

PR - GB19930010010 19930513

AP - GB19930010010 19930513

DT - *

CT - (A B)
[GB804851](#) A []

CCI - [E04C3/38](#) ; [E04H1/12](#)

PA - (A B)
 WRIGHT CHRISTINA JOSEPHINE [GB]; HOLMES CHRISTOPHER FREDERICK [GB]

TI - (A B)
 Building system

AB - (A)
 The basic unit of a lightweight building needing no foundations is an archway made of two freestanding components (2, 4), are being in the form of a **two-legged roof** support, one leg (24) of which is cantilevered towards the other component, which is a **column** (4) having a panel **support** arm (42) extending laterally from it towards the cantilever arm (24). The two arms overlap and are joined together by a coupling (50) which allows some relative angular movement between the two arms while at the same time transmitting any tensile or compressive forces. The roof **support** (2) and the **column** (4) have basically triangular floor plates (8). A building comprises spaced archways, with the spaces between the archways being left open to provide doorways, or filled with opaque or light-transmitting panels to act as walls, roof panels or roof lights. <IMAGE>

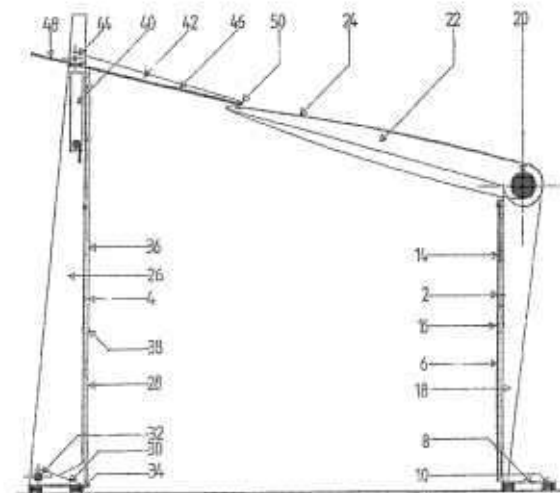


FIG 1

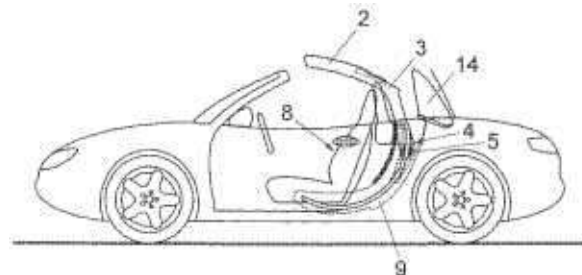
- PNFP - FR2512869 B3 19840629
- PR - FR19810017572 19810917
- AP - FR19810017572 19810917
- DT - *; Rep
- CCI - [A01K1/00](#) ; [E04H5/08](#)
- PA - (A1 B3)
AUXIL ENTREPRISES SOC [FR]
- TI - (A1)
Building for rearing animals - has roof **support columns** cast within wall panel thickness
- AB - (A1)
The building has a **two** pitch **roof**, **two** gable end walls and two lateral walls, the wall being formed by consecutive flat pieces between which are placed the roof **support columns**. The wall sections (1,6,7) are placed edge to edge and have grooves (14) on adjacent facing edges, pref. on the internal side of the building in which are cast the concrete columns (15,17). The columns are aligned so that they do not project w.r.t. the wall pieces while the frames which rest on the columns have tie beams that assure the triangulation of the frames.

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- PN - [DE2709552](#) A1 19780907
- PR - DE19772709552 19770304
- AP - DE19772709552 19770304
- DT - *; Rep
- CCI - [E04H1/02](#)
- PA - PAVLICEVIC GABRIJEL
- TI - Multiple floor pyramid form building - has **support columns** for floors inside sloping walls and trapezoid shape windows
- AB - The building has **two** opposite **roof** surfaces both sloping right down to the ground. The structure is pyramid-shaped, with abase and wall surfaces converging to an apex, as roofs. It can incorporate **support columns** inside the wall surfaces pref. at their side edges, and/or a central **support column**. There can also be horizontal stiffeners, pref. forming floors or parts of floors. Some window openings may lie in the plane of the walls, and be trapezoid in shape. Others, and door openings can be vertical, with the rear part withdrawn inwards from the wall.

60/62 © EPODOC / EPO

- PN - [WO03076222](#) A1 20030918
- PR - DE2002112573 20020312
- AP - WO2003DE00805 20030307
- DT - *; Rep
- CT - |EP| ISR (A1)
[DE4324708](#) A1 19950126
[DX] (DAIMLER BENZ AG [DE])



[DX] 1,5,9,10
 * figures 1,2; claims 1-3,6-9 *;
[DE3632058](#) A1 19880407
 [DA] (TRESER WALTER GMBH [DE])
 [DA] 1,2,5
 * column 3, line 17 - line 56;
 figure 1; claim 1 *;
[DE4100240](#) C1 19920305
 [A] (MERCEDES-BENZ
 AKTIENGESELLSCHAFT)
 [A] 1,2,5
 * figures 1-4; claims 1,2,4 *;
[FR2681292](#) A1 19930319
 [A] (PEUGEOT [FR], et al);
[DE4446799](#) A1 19960627
 [A] (KRESSEL KARL [DE])

CCI - [B60J7/20](#) ; [B60J7/223](#) ;
[B60J1/183](#) ; [B60J7/0076](#) ;
[B60J7/028](#)

PA - PERAKIS PETROS [DE]

TI - RETRACTING ROOF FOR A
 PASSENGER MOTOR VEHICLE,
 PARTICULARLY HARD **ROOF**
 FOR **TWO**-SEATED OR SEVERAL-
 SEATED CABRIOLETS, ROADSTERS,
 OR SIMILAR

AB - The invention relates to a
 retracting roof (1) for passenger
 motor vehicles, particularly a
 hard **roof** for **two**-seated or
 multiple-seated cabriolets,
 roadsters, or similar, comprising
 a dimensionally stable shell
 which is provided with a roof
 part (2) and rear **support**
columns (3) that are connected to
 the roof part at an obtuse angle,
 a rear window (11) for a window
 opening, and a separate first and
 second stowing space (9) which
 is disposed immediately behind
 the seats perpendicular to the
 longitudinal axis of the vehicle
 and into which and out of which
 the roof part (2) with the **support**
columns (3) and the rear window
 (11) can be moved by guiding
 means and driving means. The

roof part (2) and the **support columns** (3) thereof are forcibly guided in a kinematic manner along a guideway (6). The aim of the invention is to improve said retracting roof (1) in such a way that the structure obtains the required stiffness at a lower weight and in a compact construction while making said roof (1) smooth-running and mechanically simple and operable. Said aim is achieved by extending the first stowing space (9) all the way to the area located lateral to the seating unit (8) along a curve that is generated correspondingly by the downward and upward movement of the roof part and **support columns**. The rails (6) which are mounted in a fixed manner on the body structure parallel to the longitudinal axis of the vehicle by means of vertical support plates (7) form guiding devices for the **support columns** (3), said guiding devices running laterally past the seating unit (8) within the stowing space. The **support columns** (3) are guided on the rails (6) by means of guide blocks (5) which are disposed at the ends thereof.

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PN - [CN2905971Y](#) Y 20070530

PR - CN2006256033U 20060307

AP - CN2006256033U 20060307

DT - I

PA - CAI MINGLIANG [CN]

TI - Folding tent structure

AB - The utility model discloses a retractable and foldable tent structure, comprising a side frame and a roof frame. The side frame comprises a **support column** which is composed of an upper end and an upper segment. The roof frame is composed of a roof joint and a mandril which comprises an external end and an internal end. The internal end of the

mandril is connected to the roof joint via a pivot. The **roof** frame comprises **two** pole supports, one sliding base, one fixed base and one movable sleeve base, wherein the pole support comprises an upper end and a lower end; the fixed base is fastened on the upper end of the pole support; the sliding base slidably covers the upper end of the pole support; the movable sleeve base is connected to the upper end of the pole support via a pivot; the upper end of the pole support is connected near the external end of the mandril via a pivot; the lower end of the pole support is connected to the sliding base and the fixed base via a pivot; the external end of the mandril is connected to the movable sleeve base. The frame work of the roof board of the tent structure can be extended or contracted, thereby expanding the covering area of the roof board.

62/62 © EPODOC / EPO

PN - [CN2509251Y](#) Y 20020904

PR - CN2001279386U 20011229

AP - CN2001279386U 20011229

DT - I

PA - JIANG SHIHUA [CN]

TI - Plastic movable house

AB - The utility model discloses a plastic movable house that consists of a wall body and a roof, the wall body and the columns form the frame of the house, the column is designed as square with the four sides provided with locking seams, one edge of the wall body is locked inside the locking seam of one side of the column, the **roof** is integrated **two** slope board and a plane board, a **support column** or a **support** board is arranged between the tops of the two slope boards and the plane board, the plane board of the roof extends out of the wall body at the two sides to form the eaves, the two lateral edge of the plane board of the roof are provided with connectors that connect the roof and the wall body, the middle part of the wall body is provided with a door and a window. The utility model can be assembled into more than one rooms and is convenient for mass production. The utility model has the advantages of low cost, convenient to be delivered, steel and cement saving, excellent effect of heat preservation, anti-damp, shock-proof and inflaming retarding. The utility model can adopt plastics of different colors or transparent plastics and is free from maintenance, the utility model can be powered by solar energy and can be used in camps, pastures, pleasure ground and field working.