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H2H HBCH HBD

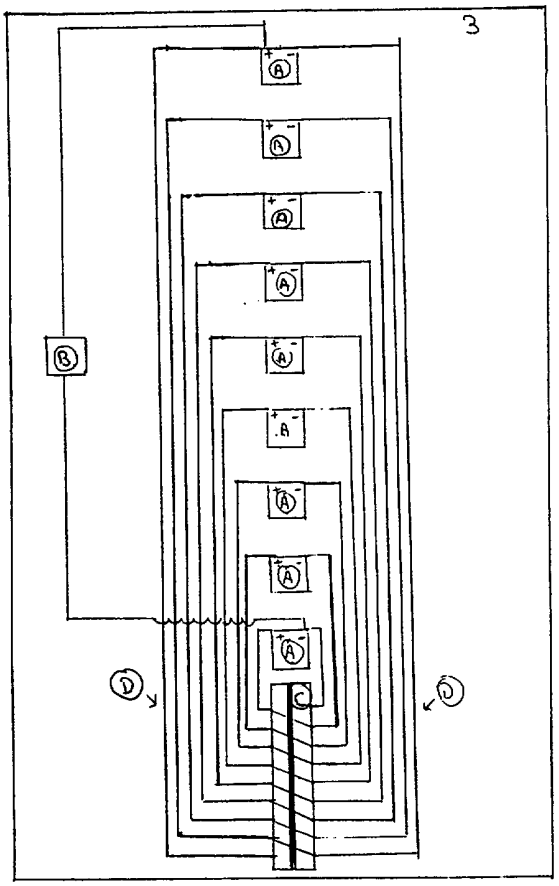
(56) Documents Cited

| | | |
|---|---|---|
| GB 2275376 A | GB 2089592 A | GB 1583865 A |
| WO 92/22098 A1 | US 5220269 A | US 5083076 A |
| US 4649332 A | | |

(58) Field of Search
UK CL (Edition R ) H2H HBCH HBD
INT CL[7] H02J 7/00 7/14
Online : WPI,EPODOC,PAJ

(54) Abstract Title
**Portable power pack with series/parallel connection of batteries**

(57) A portable power supply which comprises a number of batteries A which can be connected in series to power a device B at around 110/120V using connector block C. To recharge the batteries A the connector block C is used to attach the batteries in parallel to a lower voltage source which for example can be a car power system through the cigar lighter.



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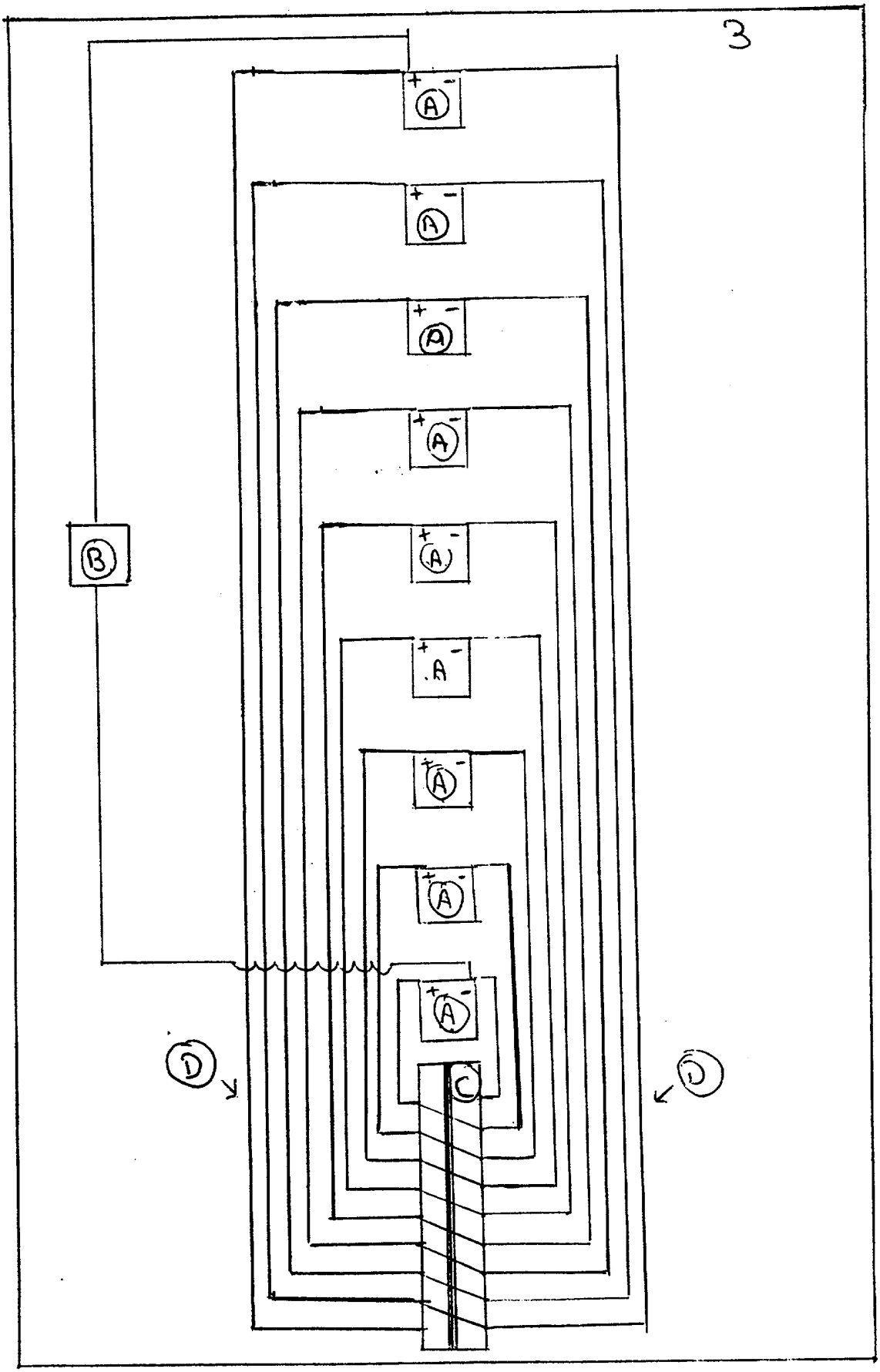
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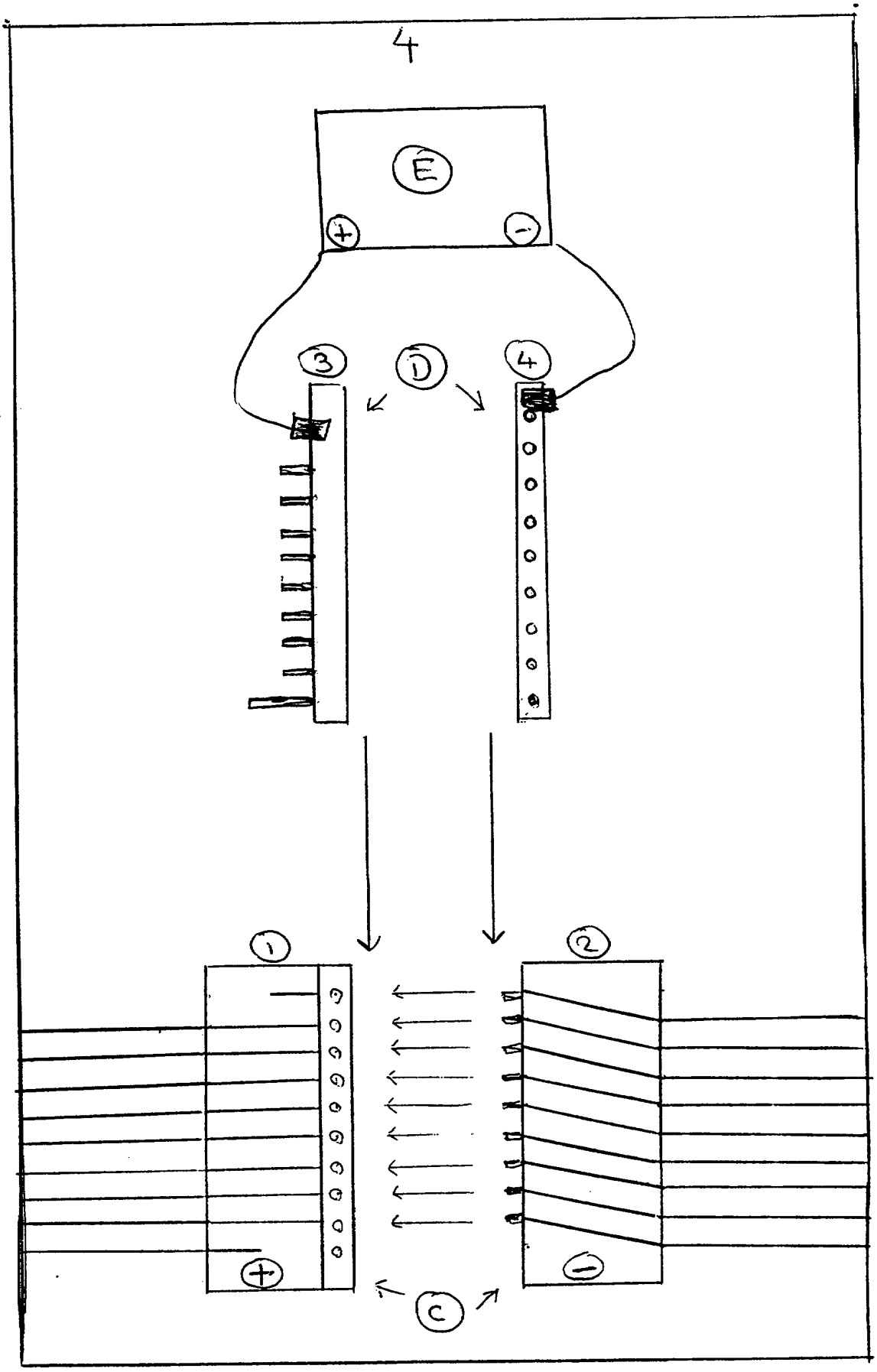

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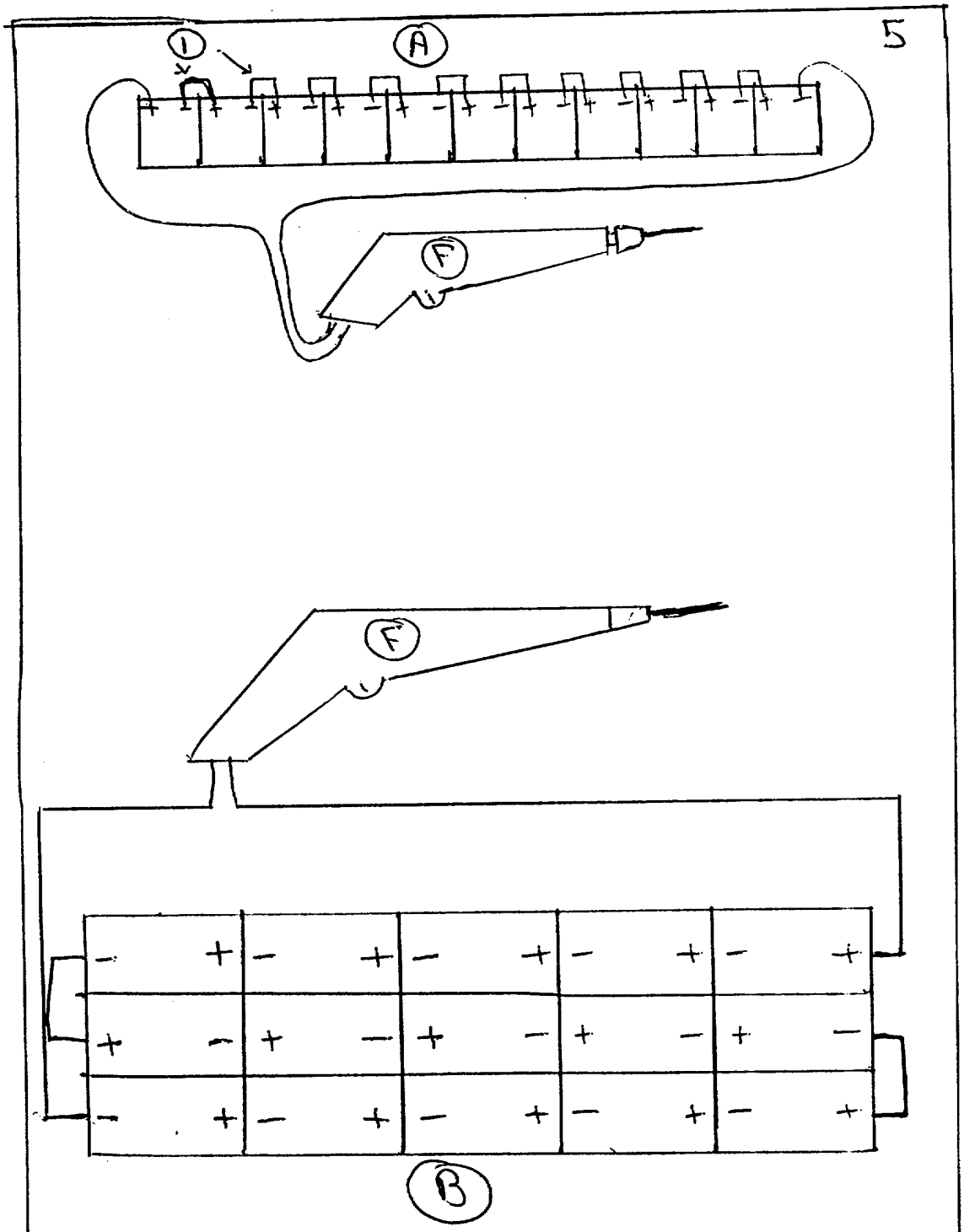

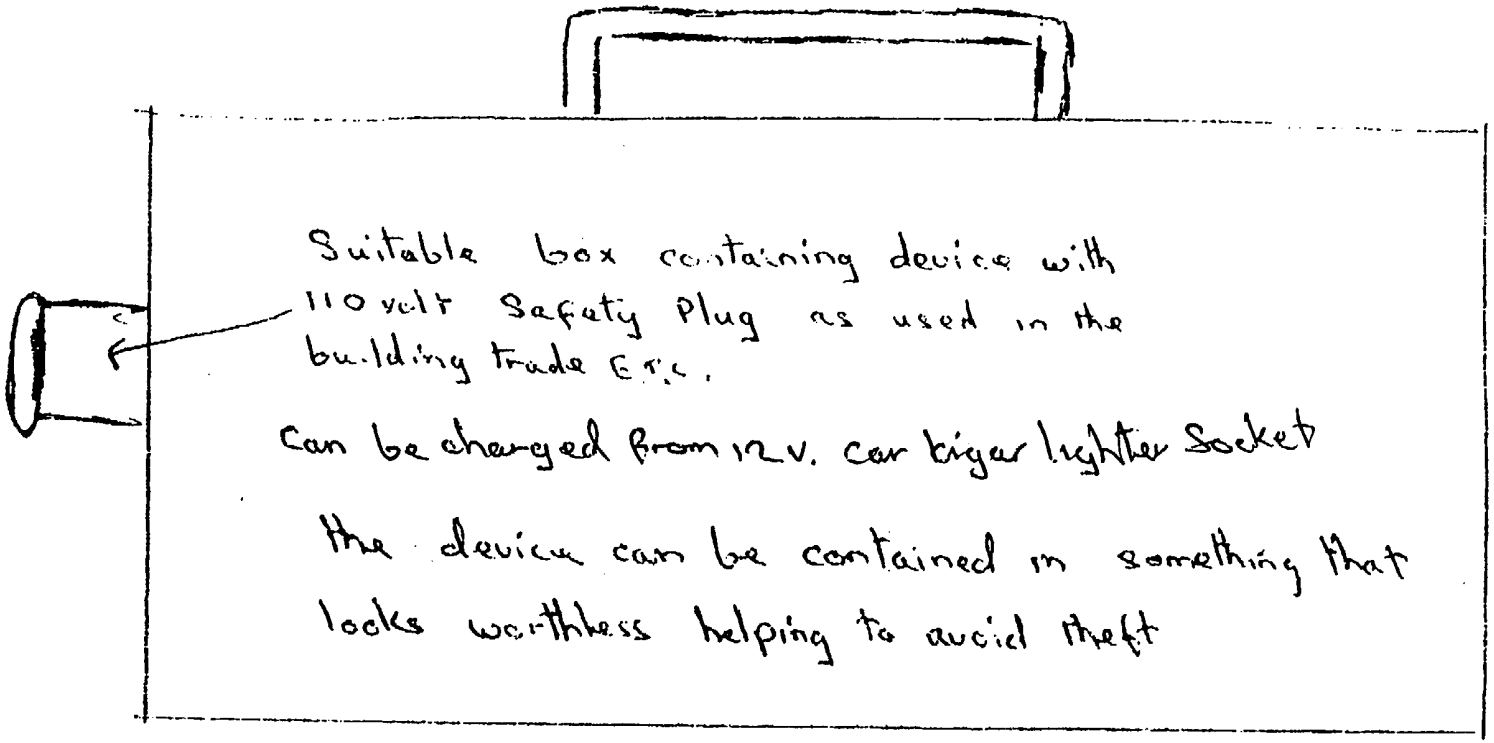
Suitable box containing device with
110 volt Safety Plug as used in the
building trade Etc.
Can be charged from 12 v. car tiger lighter Socket
the device can be contained in something that
looks worthless helping to avoid theft

# Portable Power Pack

The device is a series of small 12 volt motor cycle batteries wired in line to produce 96\108\120 volts, enough power to amply work most 120\110 volt safety voltage power tools as used in the building trade ie hand drills Grinders light bulbs planers E.T.C. also electrical equipment of the same voltage in other countries i.e. U.S.A., with the aid of the connector block described on pages three and four, and can be charged with an ordinary low ampage 12 volt car battery charger, the device has been tested upto 1000 watts with a 500 watt drill and a 500 watt grinder, working at the same time. the device "in existence" can produce 30 amps but could produce a lot more using heavier batteries, the device is completely portable ans weighs about 20 pounds, other types of battery can be used to produce 96\108\120 volts such as NICD or similar but wouldn't have the same prolonged output and would cost a lot more the object of the invention is to provide a portable source of power where no mains power exists and supersedes engine powered generators, being lighter, cheaper less (much less) moving parts can be used in unventilated rooms because there are exaust fumes can be used outside in any weather whereas a generator would be effected by wet weather, the device can provide power to drills lights e.t.c and in ordinary use will last all day (8 hours) other advantages are that one person can carry the device a long way i.e. up flights of stairs in high rise buildings whereas a generator weighing 100 pounds plus would take a supreme effort, also the theft factor, the device can be easily hidden on site or disguised as anything such as a building block battered oil can e.t.c, can be of use to military medical & rescue field operations.

The device has not got to be restricted to any voltages and can be whatever is required but anything of a higher voltage than 110-120 should be considered dangerous and 110-120 v should still be treated with respect. the individual voltage of the batteries can be anything and not restricted to 12 volts

For drawing on sheet 1

(a) Motor vehicle batteries in line producing e.g. 108 volts/12 volts each, any amount can be used to achieve any desired power

(b) appliance in use

(c) wiring connector block

(d) wiring

For drawing on sheet 2

(c) connector block parted in two, numbered one & two breaking the in line flow of current and leaving each 1 & 2 at 12 volts + and - or any voltage as desired

(d) metal manifold terminals (D)(3) fits into (1)(C) and (D)(4) fits onto (2)(C) and (E) battery charger is fitted onto (D)(3) & (4)

For drawing on sheet 3

(a) Simplified explanation using any amount of batteries to attain desired result each loop of (1) wire is cut and led to connector block

(b) Batteries of any type and any amount fitted to any type of appliance (F)

Claims

1. A portable power pack made up of series of batteries wired in two ways using a connector block or switch,(see p.3) the batteries are wired in line to produce any desired voltage and when using the connector block or switch the batteries are reduced back to their individual voltage and now instead of being wired in line are now connected negative to negative and positive to positive and are now of a low voltage in the whole, and can be recharged using a low voltage battery charger or plugged into car cigarette lighter plug or directly into any charger. See page 4

2. A portable power pack which is totally portable can be carried by hand or pulled along on wheels , can be pushed along on wheels

3. A portable power pack which can supply power to electrical appliances of any voltage

4. A portable power pack which can be charged at low voltage and can produce a low voltage and increase to a high voltage

5. A portable power pack which can contain any sort of battery or batteries

6. A portable power pack which can produce a high ampage and wattage (high amps & watts)

7. A portable power pack which can fit into any container or need not be fitted into a container.

**Application No:** GB 9904086.7
**Claims searched:** 1 to 7

**Examiner:** Nik Dowell
**Date of search:** 23 August 2000

# Patents Act 1977
# Search Report under Section 17

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.R): H2H - HBCH, HBD

Int Cl (Ed.7): H02J - 7/00, 7/14

Other: Online : WPI, EPODOC, PAJ

**Documents considered to be relevant:**

| Category | Identity of document and relevant passage | | Relevant to claims |
|---|---|---|---|
| X | GB 2 275 376 A | (Yang) see abstract | 1,4 to 6 |
| X | GB 2 089 592 A | (Pag Power) see abstract | 1,4,6 |
| X | GB 1 583 865 A | (Post Office) see page 1, lines 15 to 77 | 1 to 7 |
| X | WO 92/22098 A1 | (Harer) see abstract and figure | 1,4 to 6 |
| X | US 5 220 269 A | (Chen et al.) see whole document | 2,3,5 to 7 |
| X | US 5 083 076 A | (Scott) see figures 1,3,4 and 6 | 1,2,5 to 7 |
| X | US 4 649 332 A | (Bell) see abstract | 1,5,7 |

X Document indicating lack of novelty or inventive step
Y Document indicating lack of inventive step if combined with one or more other documents of same category.
& Member of the same patent family
A Document indicating technological background and/or state of the art.
P Document published on or after the declared priority date but before the filing date of this invention.
E Patent document published on or after, but with priority date earlier than, the filing date of this application.