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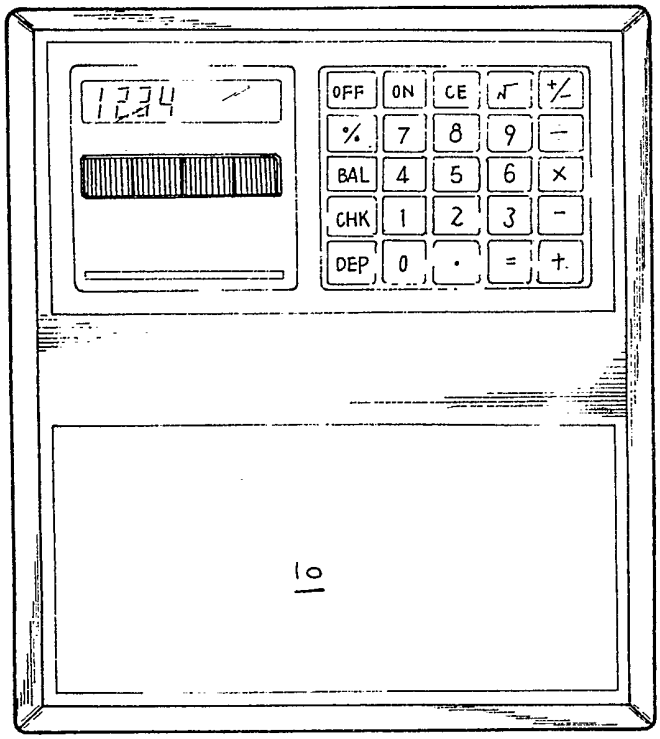
(56) Documents cited

GB A 2132837	GB 1424383
GB A 2082854	GB 1375844
GB A 2033680	GB 1127980
GB A 2025093	EP A1 0019222
GB 1583904	WO A1 8102362

(58) Field of search
H2H
G4A

(54) Solar-energised computer

(57) A calculator has a solar energy source 10, an alkali or dry mercury battery source, and a circuit which transfers the power input to the calculator from the solar source 10 to the battery when the light level falls below a predetermined level. The transfer circuit includes an integrated circuit having means to continue the supply of power to memory circuits when the calculator is turned off.



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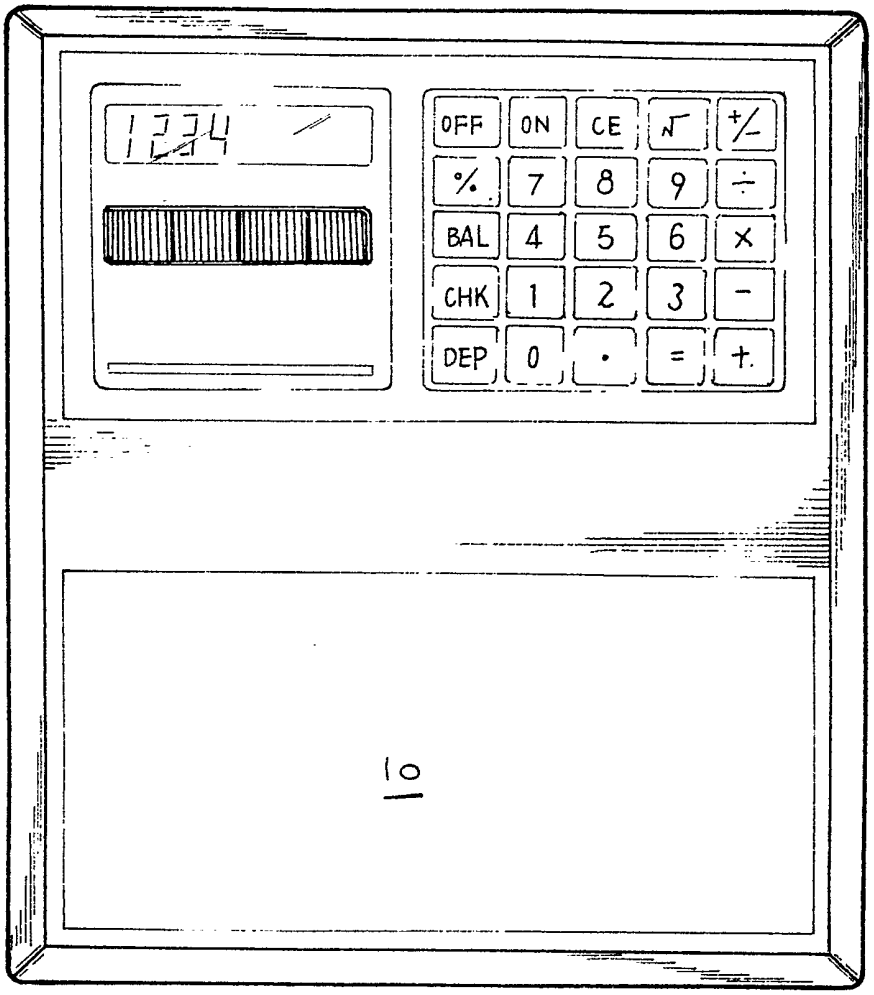

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SPECIFICATION

Solar-energised computer

The present invention relates to a computer which is energised from solar energy.

Solar-energised computers are known, their disadvantage being that they fail to operate when the amount of illumination falling upon them drops below a predetermined level. When the amount of illumination becomes insufficient during operation, the numbers and signs will not only disappear but also erase from the memory.Thus the stored numbers or signs will not appear again even if the amount of illumination is subsequently restored.

The object of the invention is to correct the above disadvantage.

According to the present invention there is provided a solar-energised computer in which power is supplied to the computer from a solar cell when the amount of illumination is at or above a predetermined level, a battery also being provided to power the computer when the amount of illumination falls below said predetermined level, and a transfer circuit for transferring the power source, as required, between the solar cell and the battery.

The solar-energised computer preferably includes an alkali or dry mercury battery which with the solar cell provides a continuous power supply. The transfer circuit conveniently includes an integrated circuit including means for continuing to supply the computer memory when the computer is switched off. In this way information may be stored in the computer and indicated again by pressing the "memory key" after the power source is switched on again.

It has been found that by means of the invention the life of the alkali or dry mercury battery can be three times longer than that of a known solar-energised computer.

The invention will now be described further by way of example with reference to the accompanying drawing the single Figure of which is a front elevational view of the computer contructed in accordance with the present invention.

The computer shown in the drawings is a calculator which may be hand-held or desk mounted. The calculator has a solar panel 10 which powers the calculator when the amount of illumination lies at or above a predetermined level. The calculator also has an alkali battery (not shown) which is used to power the calculator when the amount of illumination is insufficient to activate the solar panel. A transfer circuit is provided for transferring the calculator power source between the solar panel and the battery in dependence upon the level of illumination present. The integrated circuit includes means for continuing to supply the computer memory after the computer has been switched off.

CLAIMS

1. A solar-energised computer in which power is supplied to the computer from a solar cell when the amount of illumination is at or above a predetermined level, a battery also being provided to power the computer when the amount of illumination falls below said predetermined level, and a transfer circuit for transferring the power source, as required, between the solar cell and the battery.

2. A computer as claimed in claim 1 in which the battery is an alkali or dry mercury battery.

3. A computer as claimed in claim 1 or claim 2 in which the transfer circuit includes an integrated circuit including means for continuing to supply the computer memory when the computer is switched off.

4. A solar-energised computer substantially as herein described with reference to and as illustrated in the accompanying drawings.

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