

The invention

- 4 The invention aims to obtain a rotary force from an imbalance of buoyancy. In the construction which is described and illustrated, a gas filled reservoir is compressed between two rotating rigid wheels which are at least partly submerged in a container of water, the wheels being set at an angle to give the reservoir a wedge shape with a wider end and a narrower end. The reservoir has a “compressed side” and an “open side” and has an air vent or valve “depending on the desired pressure”, and I presume (though it is not stated) that this arrangement is intended to establish the gas filling in the reservoir. Plates and hoops are built into the reservoir to stop water pressure from collapsing it.
- 5 As I read the specification, the basis of the invention is that the “out of balance” wedge shape is continuously renewed as the wheels rotate and thus provides a continuing input buoyancy lift; this is more than is required to keep the wheels rotating because negative frictional forces are mostly transferred to the wheel bearings. There is therefore a surplus rotary torque which constitutes a sustainable energy source.

Arguments

- 6 The examiner’s fundamental objection is that the device cannot work as described and claimed because there is no energy input into the device: if there is no energy input the wheels will simply come to a halt as they give up any kinetic energy which was supplied when the device was initially started. He argues that buoyancy is merely the sum of the pressure forces acting across all the surfaces of an object and that even if friction is minimized as Mr Whatford suggests none of the forces acting on the device produce any torque about the axis of the wheels which would cause them to rotate.
- 7 Mr Whatford states that any competent engineering firm could construct the device from the description in the specification. He believes that the examiner’s view of how it operates is based on a misunderstanding of the energy laws and is purely speculative. He says that the invention is best viewed as a reversed water wheel in which air enters one side of the wheel, floats to the top by rotating the wheels, and is then ejected back to the bottom of the reservoirs. There is therefore a constant air flow within the device, whereby the buoyancy and hence the kinetic energy are constantly renewed. In response to the examiner’s observation that water wheels have a continuous energy input from an elevated and/or flowing water supply, Mr Whatford argues that his device has a constant flow of buoyancy, which is recycled because of the mechanical efficiency of the device.
- 8 Mr Whatford also says that the examiner’s objections are directly contradictory to his experimental evidence and tank tests. He particularly invites the examiner to try an experiment shown on his website in which a plastic bottle is held underwater with both hands; if the hand at the larger end is released the bottle will rotate until that end is uppermost and will continue to rotate unless held by a force.

Conclusions

- 9 Having considered both the examiner's and Mr Whatford's arguments very carefully, I agree with the examiner. I do not think that Mr Whatford has come up with any convincing reason which throws doubt on the examiner's view as summarised above. I believe that the examiner has correctly analysed the forces acting on the device and I simply cannot see how there could be a "flow of buoyancy" to enable the device to continue to rotate without some form of energy input. Neither do I see how the simple experiment described on Mr Whatford's website would take matters any further.
- 10 My conclusion of course follows from the laws of conservation of energy. I would emphasise that I am not treating these as some form of "holy script" as Mr Whatford alleges in correspondence. However, nothing that Mr Whatford has said convinces me these well-established laws do not apply to his device.
- 11 As to the sufficiency of the description, it may well be the case that that a device of some sort could be constructed from the details given, but I think the examiner is correct in his view that it could not be made to work as described and claimed and that the description is therefore insufficient.
- 12 In response to allegations made in correspondence by Mr Whatford concerning the failure of the Office to properly examine the evidence he had put forward, I should make it clear that the function of the Office is to check whether the application complies with the requirements of patent law. It is not the role of the Office to carry out experiments, however simple, to test the theory supposedly underlying the invention. In my view the examiner was perfectly justified in the approach that he took.
- 13 I therefore see no basis for the grant of a patent on this application, and I refuse it under section 18(3) of the Act. In consequence, it will not now be searched or published.

Appeal

- 14 Mr Whatford has a right of appeal to the Patents Court against my decision. If he wishes to do this he should (as required by the Practice Direction to Part 52 of the Civil Procedure Rules), file his notice of appeal with the court within 28 days of the date of the decision.

R C KENNEL

Deputy Director acting for the Comptroller