(12) UK Patent Application (19) GB (11) 2 156 288 A

(43) Application published 9 Oct 1985

(21) Application No 8411175

(22) Date of filing 1 May 1984

(30) Priority data

(31) 8320643 (32) 1 Aug 1983 (33) GB

(51) INT CL[4]
B60G 3/14 B62B 1/18

(52) Domestic classification
B7D 2A2C 2A2D 2A5B1A 2D 4C

(56) Documents cited

GB A 2064442	GB 0485077
GB 1225114	GB 0426986
GB 1101442	GB 0397942
GB 1075866	GB 0238472
GB 0680473	GB 9523139
GB 0646017	

(58) Field of search
B7B
B7E

Reprinted front page

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(54) Wheelbarrow with spring suspension

(57) The single wheel is carried by a trailing-arm which is linked to the frame or chassis of the wheelbarrow via a torsion device consisting of an outer steel tube, which is concentric with a solid bar, the space between the tube and bar being filled with moulded rubber which acts as a shock absorber as well as a torsion suspension. The solid bar of the torsion device fits into a position which would be the axle in a conventional wheebarrow. This suspension unit allows a wheelbarrow to traverse rough ground with the minimum of effort and with little spillage of the material being carried. When tipping the load, in the usual up and over mode, the suspension unit will act as a self-adjusting fulcrum by moving closer to the surface on which the load is being dumped.

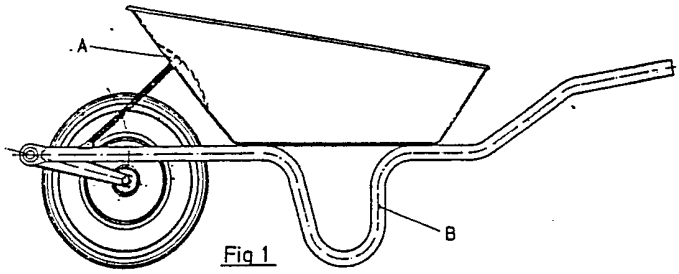

Fig 1

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The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1982.

This print embodies corrections made under Section 117(1) of the Patents Act 1977.

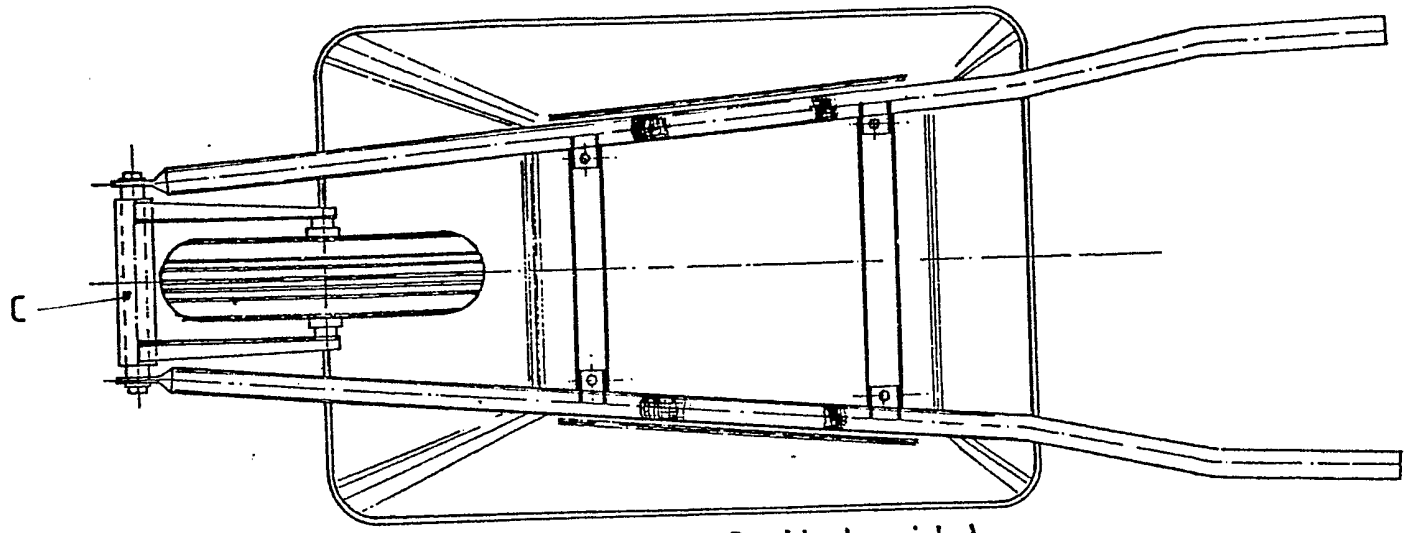

Fig 2 (View On Underside)

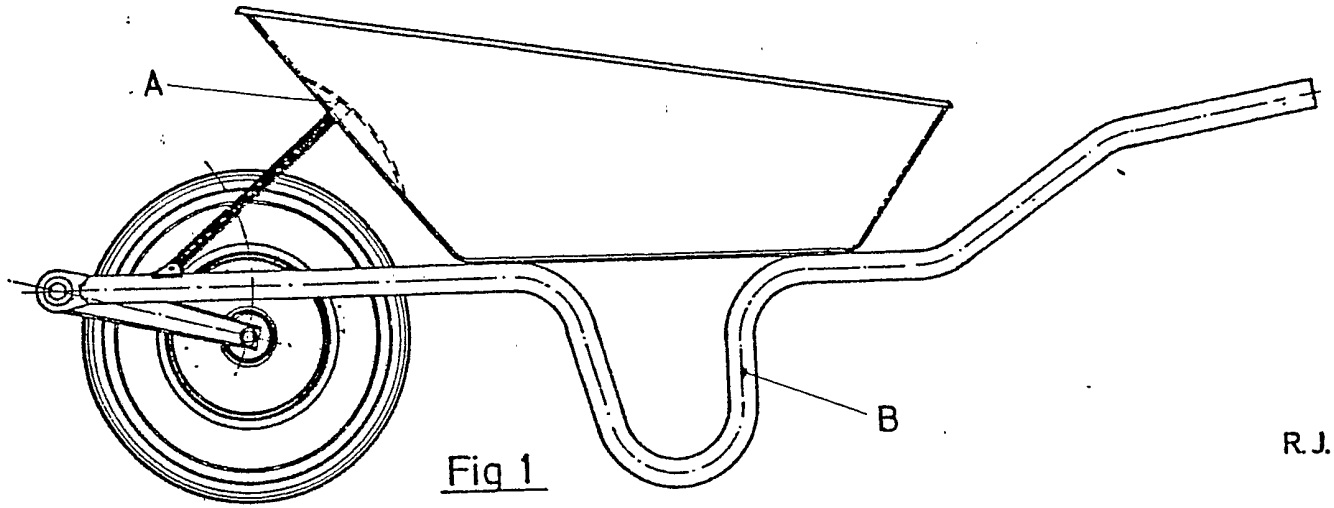

Fig 1

R.J.C.

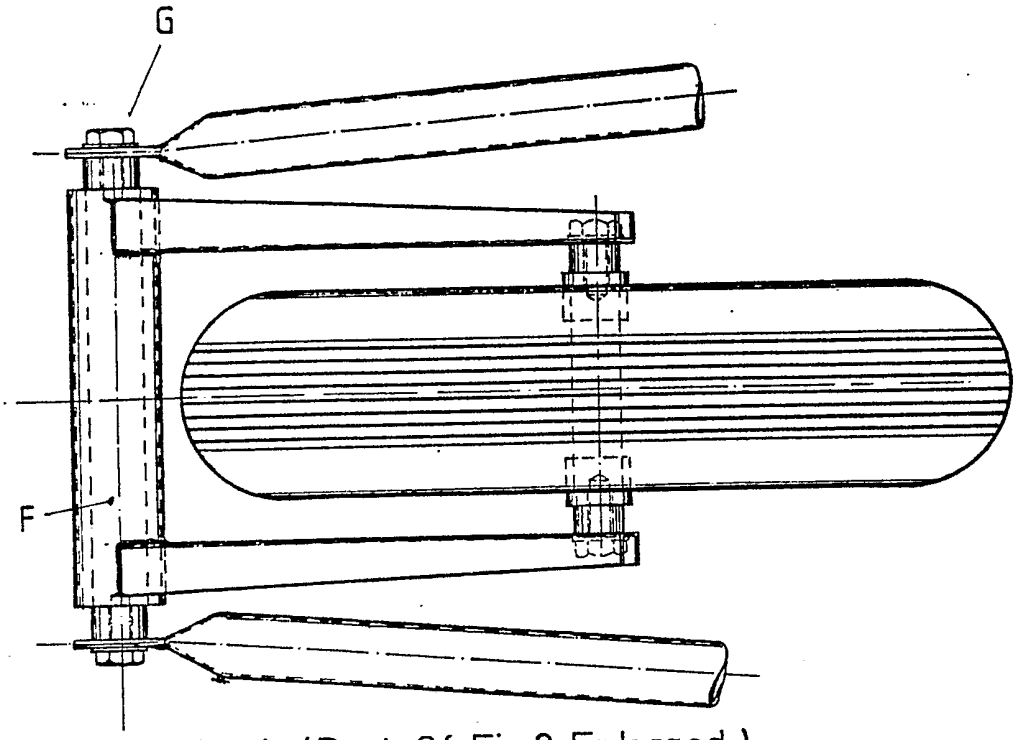

Fig 4 (Part Of Fig 2 Enlarged)

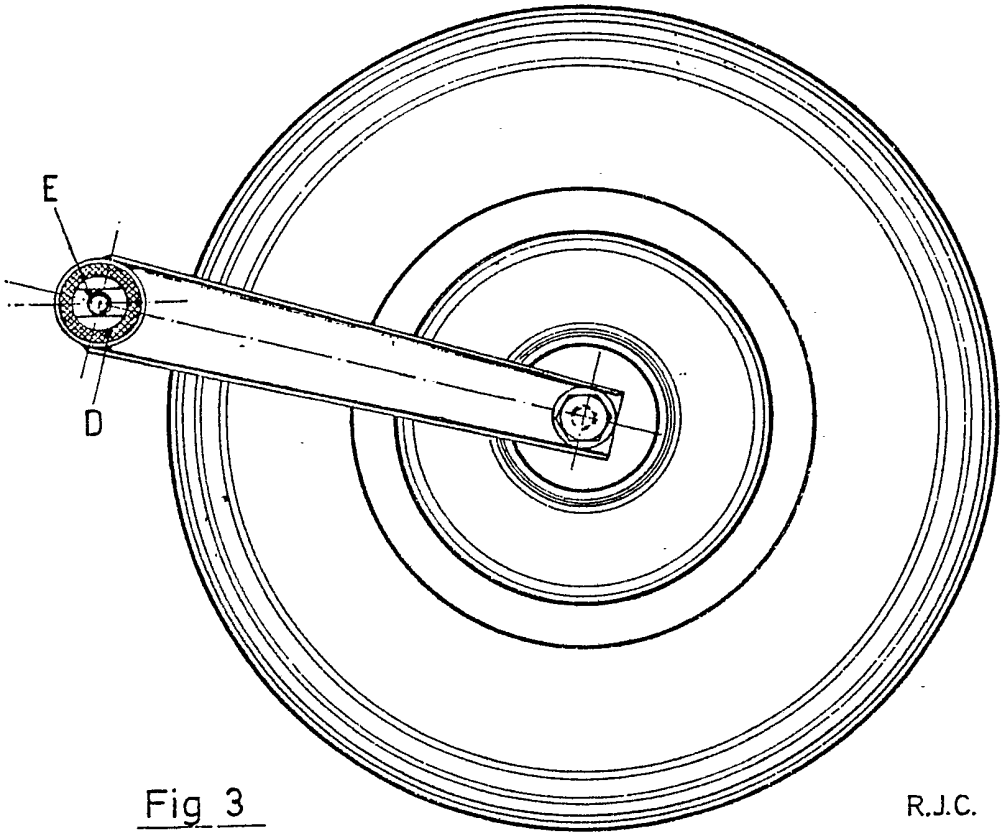

Fig 3

R.J.C.

SPECIFICATION

Wheelbarrow suspension

The present invention relates to a wheelbarrow suspension, and has as an object the provision of a novel form of ironing out the resulting shocks which are normally associated with wheelbarrows when they are pushed over rough or uneven surfaces.

The following description, in which reference is made to the accompanying drawings - Figure 1, Figure 2, Figure 3, and Figure 4 - is tendered in order to illustrate the invention.

In accordance with the present invention there is provided a trailing-arm suspension, Figure 4. The circular motion of which is resisted by an elastic compound D, Figure 3. This compound is moulded between the outer tube F, Figure 4, and an internal bar E, Figure 3.

The protruding ends of the internal bar E, Figure 3, are conveniently shaped to fit a conveniently shaped fixing arrangement at the appropriate ends of the steel tubes which go to make up the wheelbarrow frame B, Figure 1.

All the components which are incorporated in the suspension arm can have their shapes and dimensions altered to suit a wide variety of operating conditions.

So that the overall dimensions of the wheelbarrow may be kept within acceptable limits, the barrow bin, Figure 1, may be suitably pressed at A to allow maximum deflection under severe operating conditions.

Advantageously, the suspension-arm, Figure 4, while acting as the wheel bearing component, will also act as a self-adjusting fulcrum when the load is being tipped 'up and over' out of the barrow bin. It also lends itself well to the use of a solid tyre wheel.

CLAIMS

1. A wheelbarrow suspension comprising a wheel and axle secured to a chassis on which is fastened a body, in the form of a barrow bin, all assembled together to make up a workable wheelbarrow.

2. A wheelbarrow suspension as in Claim 1 where a polymerizable liquid rubber compound is used for torsional resistance and shock absorbance.

3. A wheelbarrow suspension as in Claims 1 and 2 where the rubber compound is moulded between an inner bar and the outer tube of the suspension unit.

4. A wheelbarrow suspension as in Claims 1, 2 and 3 which will accommodate a solid wheel, a solid-tyred wheel, or an inflated-tyred wheel.

5. A wheelbarrow suspension substantially as described herin with reference to Figures 1 to 4 of the accompanying drawings.

Printed in the UK for HMSO, D8818935, 8/85, 7102.
Published by The Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.