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A01D

(54) Fruit pickers

(57) A fruit picker has a body 1 made of tubing some of which is fabricated into fingers 7 and which when connected to a handle to enable the operator to pick fruit from trees. The fruit is protected within the tube of fingers 7 which acts like a slipping clutch upon unripe fruit 9 when twisted. These can be left to ripen or alternatively harvested by snapping the stalk between the fingers by pushing the tool higher and then twisting it.

An adjustable finger spreader 2 held in place by the tension of the fingers all supported by an elastic band 3 allows for different types and sizes of fruit to be gathered.

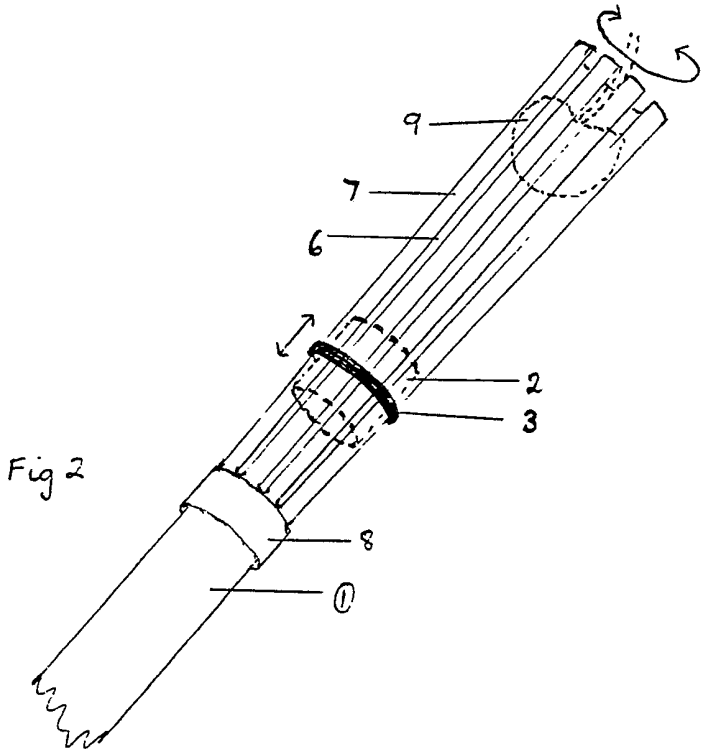

Fig 2

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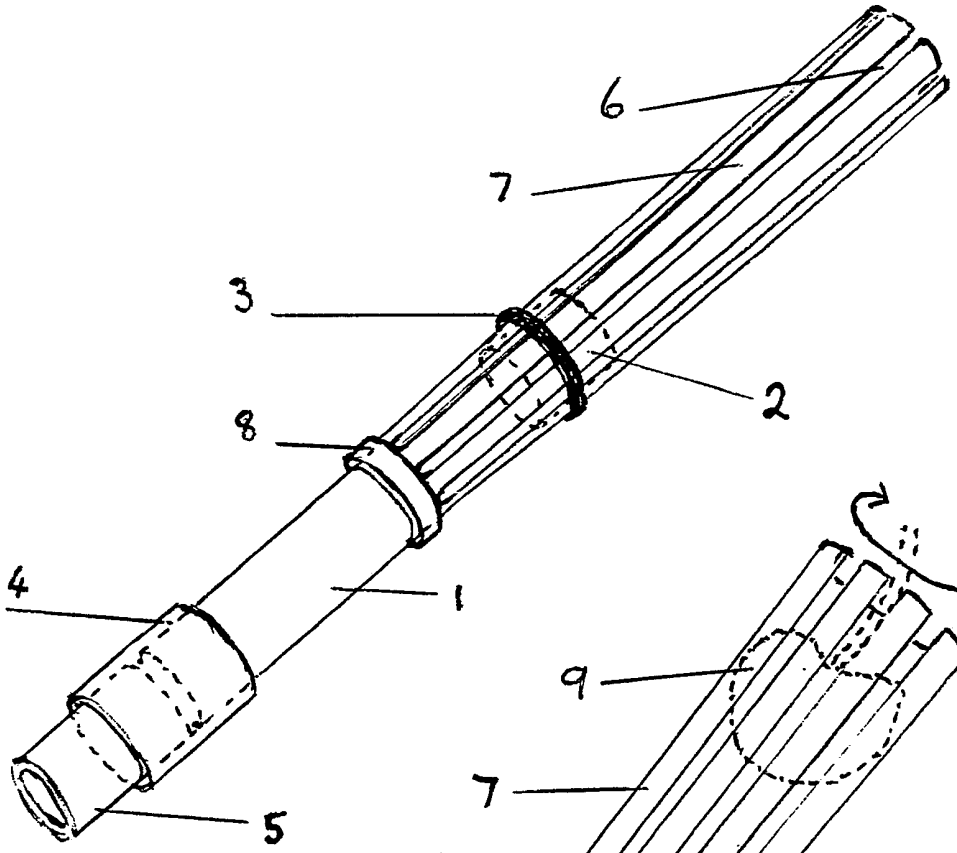
Fig 1



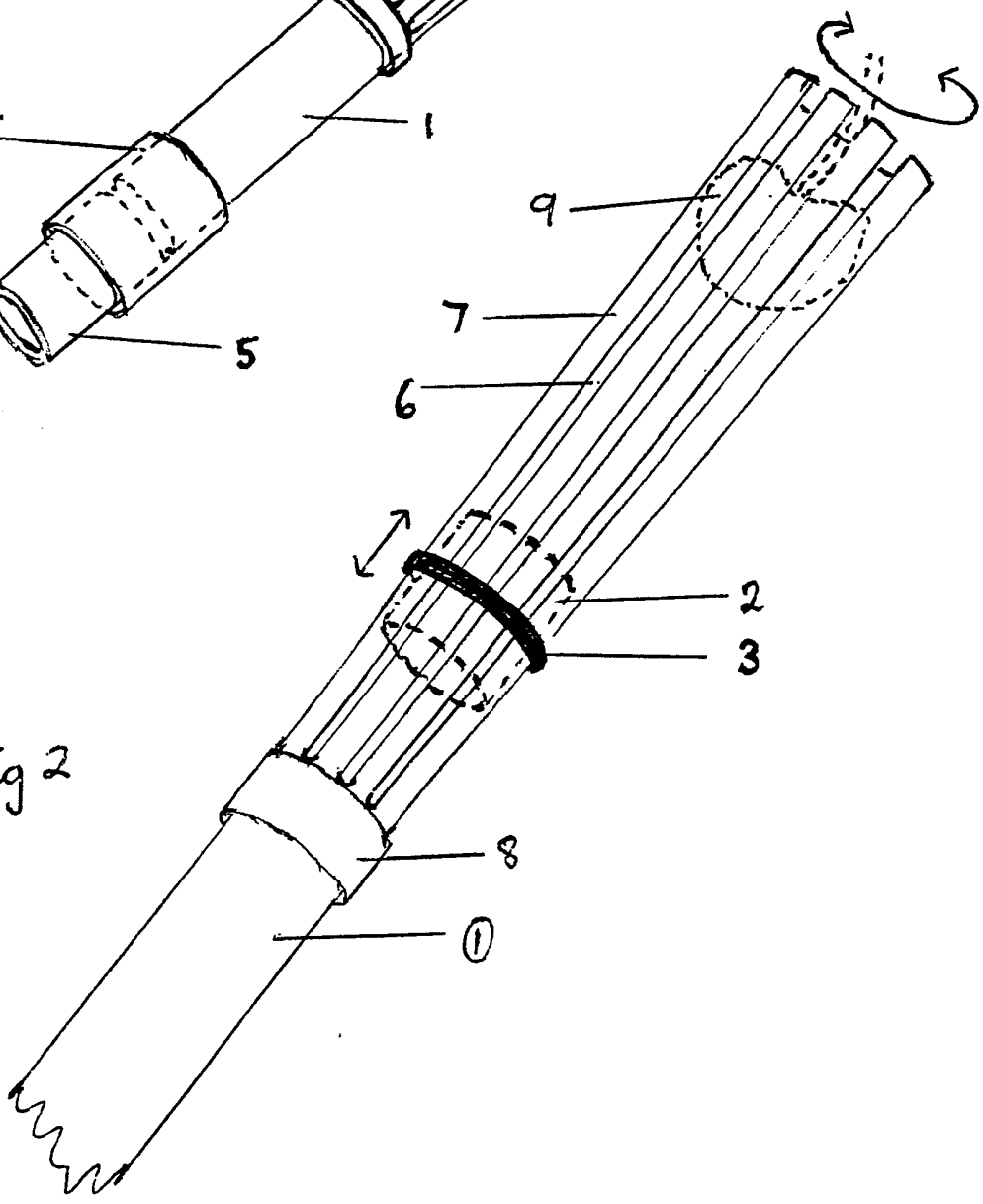
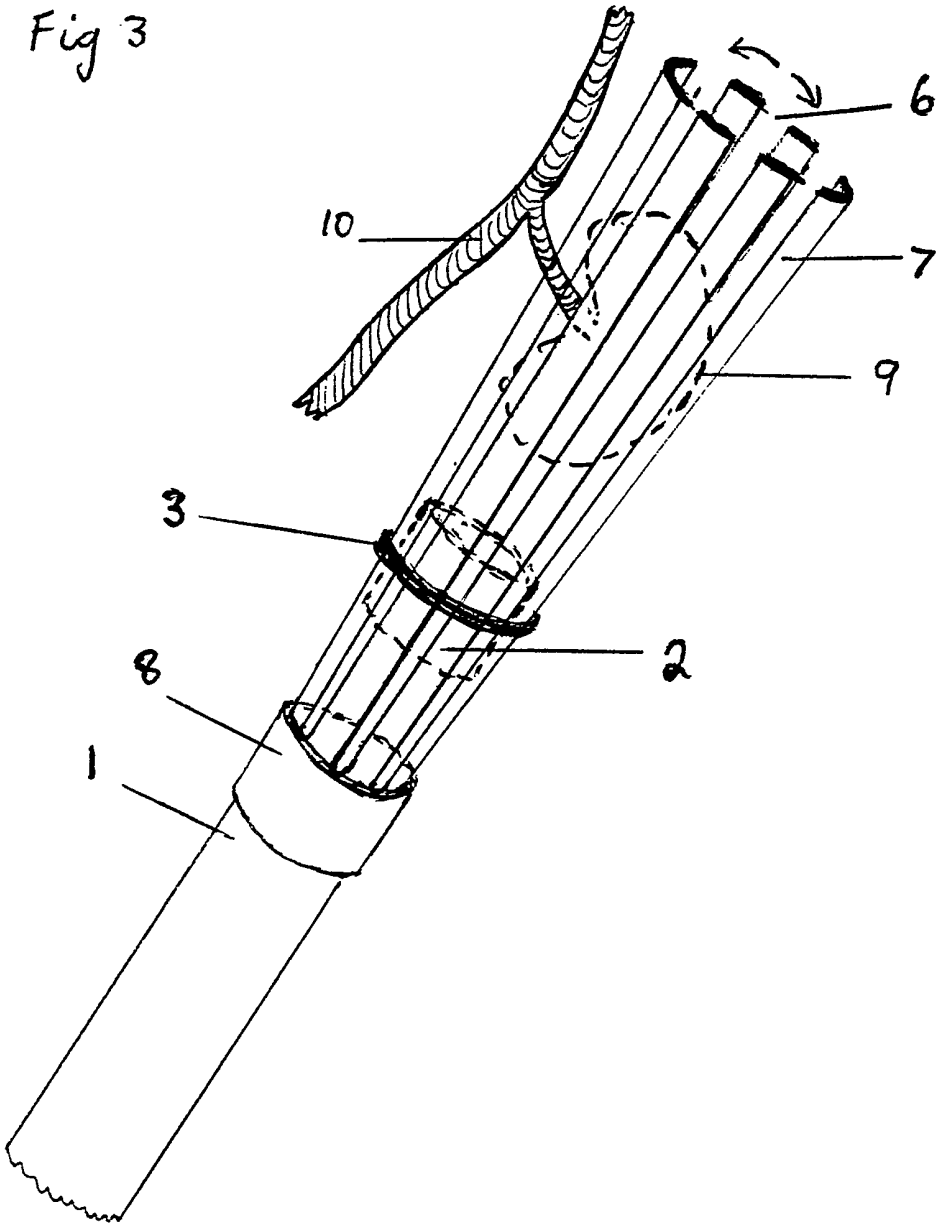


Fig 2

Fig 3



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TUBULAR FRUIT PICKER

This invention relates to a variable reach twist action torque releasing gravity holding Fruit picker of tubular construction for manual use which is adjustable to accommodate various fruits such as apples and pears of differing sizes.

There are other cumbersome net type or mechanical springlever padded finger grip type fruit pickers which are more awkward less efficient, snag branches, drop more fruit and slower in use than this invention, which is robustly made of weather, corrosion and rot resistant material. Can be used to select ripe from unripe fruit and harvest either type as required speedily with minimal loss or damage.

According to the present invention there is provided a torque release fruit picker comprising a tubular body coupled to a tubular handle by friction fit double socket or socket-reducer coupling.

The tubular body is fabricated by cuts separating smoothed finger lengths which are flexible dependent upon the material of manufacture, plastic being favourite.

An insert of a sliding adjustable or fixed cylindrical finger spreader of similar diameter to that of the body section is held in place within the fingers by a flexible elastic band supporting them round the outside.

An optional fixed rigid band to support the body at the finger cut web ends to save splitting of the body section.

A particular example of the invention will be explained with reference to the accompanying drawings.

The Tubular fruit picker complete comprises a body section of tube 1 slotted 6 to make retention fingers 7 The fingers are rounded and smoothed The cut web ends can be rounded and or supported by a rigid fixed band 8 to avoid splitting of the body.

A short length of sliding or fixed tube or cylinder 2 is used to spread and adjust the fingers 7 It is retained by the tension of the fingers and the support of a flexible elastic band 3

The body 1 is connected to a tube length 5 or lengths by straight friction fit tube socket connectors 4 to make the handle.

Figure 1. shows in perspective the tubular fruit picker 1 body section with the connection 4 to a short length of handle section 5 The internal sliding or fixed finger spreader is shown dotted 2 The elastic retention band 3 The cut slots 6 between the smoothed fingers 7 supported by a rigid band 8

Figure 2. shows the fruit 9 being gripped by the self opening fingers 7 subject to the gravity weight of the fruit. Also illustrates the twist torque slip on unripe fruit, also shows ease of access to the fruit 9 for removal by hand from between the opened fingers.

Figure 3. shows an unripe fruit 9 being picked by twisting and snapping the stalk from the branch 10 between the fingers.

The assembled tubular fruit picker the fingers of which are tensioned as required at 3 is directed between the foliage and branches to the selected fruit which hangs down from the branch.

The weight of the fruit allows the fingers 6 to gently spread and wrap the fruit with a moderate grip. The tool is then twisted to break the stalk. Should the fruit cease to twist and then slips within the fingers then the fruit is not ripe enough and should be left on the branch by lowering the tool away.

For fruit which is ready the stalk will break and the fruit will lodge by it's own weight within the tools fingers.

The tube is then slipped through the hands till the operator can reach the fruit and remove it from between the tools' fingers to be placed undamaged and safely into containers for use or storage.

For less ripe or less accessible fruit the stalk may be snapped between the fingers of the tool.

Additionally the fruit can be placed directly untouched by hand into ground level containers by releasing the fruit with a slight jerk action. This can ease and speed up the picking process greatly.

The wrapping round the fruit by the fingers protects it from damage whilst passing between the branches and twigs.

The smoothness of the design allows for easy passage through close foliage and twigs and from branches.

CLAIMS

1. A tubular torque releasing fruit picker comprising a tubular body coupled to a tubular handle by friction fit double socket or socket reducer coupling or combined in one piece.

The tubular body is fabricated by cuts into smoothed finger lengths which are flexible dependent upon the material of manufacture.

An insert of an adjustable cylindrical finger spreader is held in place within the fingers by a flexible elastic band supporting them round the outside.

An optional fixed rigid band supports the body at the finger cut ends or web to save splitting of the body section.

2. A tubular torque releasing fruit picker as claimed in claim 1 wherein a fruit size adjustment finger tensioner and spreader slideable or fixed is provided within the fingers section to help regulate the fruit containment pressure and the friction twist release function under a given or required torque.

3. A tubular torque releasing fruit picker as claimed in claims 1 or 2 wherein the finger tension spreader is retained and supported and the fingers are also supported by an elastic retention band round the fingers section.

4. A tubular torque releasing fruit picker as claimed in claims 1.2 and 3 wherein the fruit retaining finger section is of such a length, diameter and flexible material as to hold the fruit as required.

5. A tubular torque releasing fruit picker as claimed in claims 1.2.3. and 4 wherein the elastic finger support band is of a strength and tension sufficient to stay in place and help balance the fruit containment pressure of the fingers thus providing the friction twist release under the required torque. Also to close the fingers when empty so that they open automatically to enclose the fruit when pushed against the weight of it.

6. A tubular torque releasing fruit picker as claimed in claims 1.2.3.4 and 5 wherein it is extended by a connection or connections of a friction fit double socket coupling or coupling reducer to a tubular handle section.

7. A tubular torque releasing fruit picker substantially as described herein with reference to drawings figures 1.2 and 3 incorporating the alternative use of and the material, structural and physical properties of ready made plastic or P.V.C type tubing and fittings.

8. A tubular torque releasing fruit picker substantially as described herein with reference to figures 1.2 and 3 of the accompanying drawings.

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