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Expandable Tree Pot

Abstract

An expandable tree pot includes a pot body and a pot lip arrangement. The pot lip arrangement is in the form of an accordion-style telescoping structure designed to be expanded from a collapsed position to a fully extended position to increase the height of the pot body from a minimum height to a maximum height to permit a user to continue to use the expandable tree pot upon a tree contained therein growing beyond the minimum height of the pot body.

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not Applicable

THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

[0003] Not Applicable

INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC
OR AS A TEXT FILE VIA THE OFFICE ELECTRONIC FILING SYSTEM

[0004] Not Applicable

STATEMENT REGARDING PRIOR DISCLOSURES BY THE INVENTOR OR JOINT
INVENTOR

[0005] Not Applicable

BACKGROUND OF THE INVENTION

(1) Field of the Invention

[0006] The disclosure relates to plant pots and more particularly pertains to a new expandable tree pot for allowing a user to continue to use the expandable tree pot upon a tree contained therein growing beyond the minimum height of the pot body. When growing trees, tree pots can be used. The tree pots must be increased in size as the tree grows, so every time the roots of the tree increase beyond the maximum size or volume of the tree pot, a new larger tree pot must be purchased. A user could save time and money if a single tree pot was expandable to accommodate a tree as it grows.

(2) Description of Related Art Including Information Disclosed Under 37 CFR 1.97 and 1.98

[0007] The prior art relates to tree pots. The prior art, as best understood, does not disclose an expandable tree pot that can be expanded in height using an accordion-style lip arrangement in order to increase the volume of the tree pot and accommodate a tree as it grows.

BRIEF SUMMARY OF THE INVENTION

[0008] An embodiment of the disclosure meets the needs presented above in an expandable tree pot generally comprising a pot body and a pot lip arrangement. The pot body is designed to receive and contain soil and the roots of a tree. The pot lip arrangement is positioned at and to surround an open end of the pot body. The pot lip arrangement is designed and positioned to project radially outwardly and a substantial distance beyond an outer surface of the pot body. The pot lip arrangement is in the form of an accordion-style telescoping structure designed to be expanded from a collapsed position to a fully extended position to increase the height of the pot body from a minimum height to a maximum height to permit a user to continue to use the expandable tree pot upon a tree contained therein growing beyond the minimum height of the pot body.

[0009] To further explain, some common tree pot sizes, as measured by volume in US gallons, are 5, 7, 10, 15, and 25 US gallons. Every time the tree outgrows a particular-sized pot, the next biggest size must be purchased. The expandable tree pot allows a user to use a single tree pot to encompass different sizes so the user does not need to buy multiple tree pots, but rather could simply keep using the same pot. For example, a 15-gallon tree pot, might have a height of 15 inches, a base width or diameter of 17 inches, and a mouth width or diameter of 17.4 inches, which calculates to 3485 cubic inches, or about 15 gallons. If such a tree pot is expandable by six inches in height to 21 inches, the volume increases to 4880 cubic inches, or about 21 gallons. If the tree pot is expandable by eight inches in height to 23 inches, the volume increases to 5344 cubic inches, or about 23 gallons. This means that a user could buy a 15-gallon pot that would be expandable almost to the next common tree pot size of 25 gallons, thereby saving the user time and money.

[0010] There has thus been outlined, rather broadly, the more important features of the disclosure in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the disclosure that will be described hereinafter and which will form the subject matter of the claims appended hereto.

[0011] The objects of the disclosure, along with the various features of novelty which characterize the disclosure, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

Description

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWING(S)

[0012] The disclosure will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

[0013] FIG. **1** is a top perspective view of a expandable tree pot according to an embodiment of the disclosure.

[0014] FIG. **2** is a top perspective view of an embodiment of the disclosure.

[0015] FIG. **3** is a top view of an embodiment of the disclosure.

[0016] FIG. **4** is a cross-sectional view of a portion of an embodiment of the disclosure.

[0017] FIG. **5** is a cross-sectional view of a portion of an embodiment of the disclosure.

[0018] FIG. **6** is a side view of an embodiment of the disclosure.

DETAILED DESCRIPTION OF THE INVENTION

[0019] With reference now to the drawings, and in particular to FIGS. **1** through **6** thereof, a new expandable tree pot embodying the principles and concepts of an embodiment of the disclosure and generally designated by the reference numeral **10** will be described.

[0020] As best illustrated in FIGS. **1** through **6**, the expandable tree pot **10** includes a pot body **12** and a pot lip arrangement **14**. The pot body **12** is designed to receive and contain soil and the roots of a tree **60**. The pot lip arrangement **14** is positioned at and to surround an open end of the pot body **12**. The pot lip arrangement **14** is designed and positioned to project radially outwardly and a substantial distance beyond an outer surface of the pot body **12**. The pot lip arrangement **14** is in the form of an accordion-style telescoping structure designed to be expanded from a collapsed position, as shown in FIG. **1**, to a fully extended position, as shown in FIG. **2**, to increase the height of the pot body **12** from a minimum height to a maximum height to permit a user to continue to use the expandable tree pot **10** upon a tree **60** contained therein growing beyond the minimum height of the pot body **12**. FIG. **6** shows a comparison between the expandable tree pot **10** in the fully collapsed state and holding a smaller tree **60** and the expandable tree pot in the fully expanded state and holding a larger tree **60**.

[0021] In accordance with at least one possible embodiment, the maximum height is in the range of approximately 20% to 30% greater than the minimum height. The corresponding maximum volume of the pot body **12** would therefore be approximately 40% to 55% greater than the corresponding minimum volume of the pot body **12**.

[0022] In accordance with at least one possible embodiment, the pot lip arrangement **14** includes ring sections **16** that are substantially cylindrical and positioned concentrically. The ring sections **16** comprise an innermost ring section **18**, an outermost ring section **20**, and at least one middle ring section **22** positioned between the innermost ring section **18** and the outermost ring section **20**. The ring sections **16** are designed to increase in diameter from the innermost ring section **18** to the outermost ring section **20**. Each of the ring sections **16** is individually movable and fixable to permit stepwise expansion of the pot lip arrangement **14** and incremental increase in the height of the pot body **12** to different heights corresponding to the number of ring sections **16**.

[0023] In accordance with at least one possible embodiment, the pot body **12** includes a pot bottom **24**. The innermost ring section **18** is formed into the pot body **12** and includes a locking receptacle **26** that is elongated and positioned transverse to the pot bottom **24**. The outermost ring section **20** includes a side lip portion **28** and a locking projection **30** that is elongated and positioned to extend essentially parallel to the side lip portion **28** and transverse to the pot bottom **24**. Each middle ring section **22** includes a locking receptacle **26** that is elongated and positioned transverse to the pot bottom **24** and a locking projection **30** that is elongated and positioned to extend essentially parallel to its corresponding locking receptacle **26** and transverse to the pot bottom **24**. Each of the locking

projections **30** is positioned in a corresponding one of the locking receptacles **26**. Each of the locking receptacles **26** includes a first receiving pocket **32**, a guide slot **34**, and a second receiving pocket **36**. Each of the locking projections **30** includes a shaft **38** and a locking head **40** positioned at the free end of the shaft **38**. Each of the locking heads **40** is designed to be inserted into the first receiving pocket **32** in a snap-fit manner to lock adjacent ring sections **16** in a collapsed concentric position. Each of the locking heads **40** is designed to be moved out of the first receiving pocket **32** and along the guide slot **34** and into the second receiving pocket **36** in a snap-fit manner to lock adjacent ring sections **16** in an expanded vertically-offset position.

[0024] In accordance with at least one possible embodiment, the expandable tree pot **10** includes plastic or elastomer or rubber or other similar material that is tree-friendly.

[0025] In accordance with at least one possible embodiment, the pot lip arrangement **14** is expandable up to approximately six to eight inches, though other size adjustments are within the scope of the disclosure.

[0026] In accordance with at least one possible embodiment, the expandable tree pot **10** has a volume of approximately 15 gallons when the pot lip arrangement **14** is in the collapsed position, and a volume of approximately 22 to 24 gallons when the pot lip arrangement **14** is in the fully expanded position, though other pot sizes and volume adjustments are within the scope of the disclosure.

[0027] In use, a user puts soil and the roots of a tree into the pot body **12**. The user then temporarily removes the tree once the tree grows beyond the volume of the pot body **12**. The user then expands the pot lip arrangement **14** from the collapsed position to the fully extended position to increase the height of the pot body **12** from a minimum height to a maximum height. The user then adds additional soil and replants the tree in the pot body **12**. Alternatively, the user could simply increase the pot height and add soil without the need for removal and replanting. In accordance with at least one possible embodiment, the user can incrementally increase the height of the pot body **12** in a stepwise manner, rather than only increasing from the minimum height to the maximum height.

[0028] With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of an embodiment enabled by the disclosure, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by an embodiment of the disclosure.

[0029] Therefore, the foregoing is considered as illustrative only of the principles of the disclosure. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the disclosure to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the disclosure. In this patent document, the word “comprising” is used in its non-limiting sense to mean that items following the word are included, but items not specifically mentioned are not excluded. A reference to an element by the indefinite article “a” does not exclude the possibility that more than one of the element is present, unless the context clearly requires that there be only one of the elements.

Claims

1. An expandable tree pot comprising: a pot body being configured to receive and contain soil and the roots of a tree; a pot lip arrangement disposed at and to surround an open end of said pot body; said pot lip arrangement is configured and disposed to project radially outwardly and a substantial distance beyond an outer surface of said pot body; and said pot lip arrangement being in the form of an accordion-style telescoping structure configured to be expanded from a collapsed position to a fully extended position to increase the height of said pot body from a minimum height to a

maximum height to permit a user to continue to use the expandable tree pot upon a tree contained therein growing beyond the minimum height of said pot body.

2. The expandable tree pot of claim 1, wherein said maximum height is in the range of approximately 20% to 30% greater than said minimum height and the corresponding maximum volume of said pot body is approximately 40% to 55% greater than the corresponding minimum volume of said pot body.

3. The expandable tree pot of claim 2, wherein: said pot lip arrangement comprises ring sections that are substantially cylindrical and disposed concentrically; said ring sections comprise an innermost ring section, an outermost ring section, and at least one middle ring section disposed between said innermost ring section and said outermost ring section; said ring sections are configured to increase in diameter from said innermost ring section to said outermost ring section; and each of said ring sections is individually movable and fixable to permit stepwise expansion of said pot lip arrangement and incremental increase in the height of said pot body to different heights corresponding to the number of ring sections.

4. The expandable tree pot of claim 3, wherein: said pot body comprises a pot bottom; said innermost ring section is formed into said pot body and comprises a locking receptacle that is elongated and disposed transverse to said pot bottom; said outermost ring section comprises a side lip portion and a locking projection that is elongated and disposed to extend essentially parallel to said side lip portion and transverse to said pot bottom; each said at least one middle ring section comprises a locking receptacle that is elongated and disposed transverse to said pot bottom and a locking projection that is elongated and disposed to extend essentially parallel to its corresponding locking receptacle and transverse to said pot bottom; each of said locking projections is disposed in a corresponding one of said locking receptacles; each of said locking receptacles comprises a first receiving pocket, a guide slot, and a second receiving pocket; each of said locking projections comprises a shaft and a locking head disposed at the free end of said shaft; each of said locking heads is configured to be inserted into said first receiving pocket in a snap-fit manner to lock adjacent ring sections in a collapsed concentric position; and each of said locking heads is configured to be moved out of said first receiving pocket and along said guide slot and into said second receiving pocket in a snap-fit manner to lock adjacent ring sections in an expanded vertically-offset position.

5. The expandable tree pot of claim 4, wherein the expandable tree pot comprises plastic or elastomer or rubber or other similar material that is tree-friendly.

6. The expandable tree pot of claim 5, wherein said pot lip arrangement is expandable up to approximately six to eight inches.

7. The expandable tree pot of claim 6, wherein the expandable tree pot has a volume of approximately 15 gallons upon said pot lip arrangement being in the collapsed position and a volume of approximately 22 to 24 gallons upon said pot lip arrangement being in the fully expanded position.

8. The expandable tree pot of claim 1, wherein: said pot lip arrangement comprises ring sections that are substantially cylindrical and disposed concentrically; said ring sections comprise an innermost ring section, an outermost ring section, and at least one middle ring section disposed between said innermost ring section and said outermost ring section; said ring sections are configured to increase in diameter from said innermost ring section to said outermost ring section; and each of said ring sections is individually movable and fixable to permit stepwise expansion of said pot lip arrangement and incremental increase in the height of said pot body to different heights corresponding to the number of ring sections.

9. The expandable tree pot of claim 8, wherein: said pot body comprises a pot bottom; said innermost ring section is formed into said pot body and comprises a locking receptacle that is elongated and disposed transverse to said pot bottom; said outermost ring section comprises a side lip portion and a locking projection that is elongated and disposed to extend essentially parallel to

said side lip portion and transverse to said pot bottom; each said at least one middle ring section comprises a locking receptacle that is elongated and disposed transverse to said pot bottom and a locking projection that is elongated and disposed to extend essentially parallel to its corresponding locking receptacle and transverse to said pot bottom; each of said locking projections is disposed in a corresponding one of said locking receptacles; each of said locking receptacles comprises a first receiving pocket, a guide slot, and a second receiving pocket; each of said locking projections comprises a shaft and a locking head disposed at the free end of said shaft; each of said locking heads is configured to be inserted into said first receiving pocket in a snap-fit manner to lock adjacent ring sections in a collapsed concentric position; and each of said locking heads is configured to be moved out of said first receiving pocket and along said guide slot and into said second receiving pocket in a snap-fit manner to lock adjacent ring sections in an expanded vertically-offset position.

10. The expandable tree pot of claim 1, wherein the expandable tree pot comprises plastic or elastomer or rubber or other similar material that is tree-friendly.

11. The expandable tree pot of claim 1, wherein said pot lip arrangement is expandable up to approximately six to eight inches.

12. The expandable tree pot of claim 1, wherein the expandable tree pot has a volume of approximately 15 gallons upon said pot lip arrangement being in the collapsed position and a volume of approximately 22 to 24 gallons upon said pot lip arrangement being in the fully expanded position.

13. A method of using the expandable tree pot of claim 1, said method comprising the steps of: putting soil and the roots of a tree into said pot body; temporarily removing said tree upon said tree growing beyond the volume of said pot body; expanding said pot lip arrangement from said collapsed position to said fully extended position to increase the height of said pot body from a minimum height to a maximum height; and adding additional soil and replanting said tree in said pot body.
