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Vitten et al.

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(54) **STRAWBERRY PLANT VARIETY NAMED 'DRISSTRAWFIFTYFOUR'**

(50) Latin Name: ***Fragaria x ananassa***
Varietal Denomination: **DrisStrawFiftyFour**

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USPC **Plt./208**

(58) **Field of Classification Search**
USPC Plt./156, 208
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of strawberry plant named 'DrisStrawFiftyFour' particularly characterized by its productivity, medium fruit with a vibrant orange-red color, and firm fruit with a heart shape, is disclosed.

4 Drawing Sheets

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STRAWBERRY PLANT VARIETY NAMED 'DRISSTRAWFIFTYFOUR'

Latin name:

Botanical classification: *Fragaria* x *ananassa.*

Varietal denomination: The varietal denomination of the claimed variety of strawberry plant is 'DrisStrawFiftyFour'.

BACKGROUND OF THE INVENTION

Cultivated strawberry is a hybrid species of the genus *Fragaria* that is grown worldwide for its fruit. Modern strawberry was first bred in Brittany, France, in the 18th century by crossing *Fragaria virginiana* with *Fragaria chiloensis*. Strawberry fruit is an aggregate accessory fruit, with the fleshy part of the fruit being derived from the receptacle that holds the ovaries.

Strawberry varieties vary widely in color, size, shape, flavor, season of ripening, degree of fertility, and susceptibility to disease. Certain varieties vary in foliage, and some vary in the relative development of their reproductive organs. Typically, strawberry flowers appear hermaphroditic in structure, but function as either male or female. Generally, commercial production of strawberry plants involves propagation from runners and distribution as either plugs or bare root plants. Cultivation is either perennial or annual plasticulture. During the off season, strawberries can also be produced in greenhouses.

Strawberry fruit is widely appreciated for its characteristic bright red color, aroma, juicy texture, and sweetness. Strawberry fruit is a popular fruit that is generally consumed either fresh or in prepared foods, such as preserves and baked goods.

Strawberry is an important and valuable fruit crop. Accordingly, there is a need for new varieties of strawberry plants. In particular, there is a need for improved varieties of strawberry plant that are stable, high yielding, and agronomically sound.

SUMMARY OF THE INVENTION

In order to meet these needs, the present invention is directed to an improved variety of strawberry plant. In particular, the invention relates to a new and distinct variety of strawberry plant (*Fragaria* x *ananassa*), which has been denominated as 'DrisStrawFiftyFour'.

Strawberry plant variety 'DrisStrawFiftyFour' was discovered in East Malling, Kent, United Kingdom in June of 2010, and originated from a cross between the proprietary female parent 'DrisStrawThirtyTwo' (U.S. Plant Pat. No. 24,333) and the proprietary male parent 'KGEM 0200' (unpatented) performed in East Malling, Kent, United Kingdom. A single plant was selected and asexually propagated via stolons in East Malling, Kent, United Kingdom.

'DrisStrawFiftyFour' was subsequently asexually propagated via stolons, and underwent further testing in East Malling, Kent, United Kingdom for seven years (2010 to 2016). The present invention has been found to be stable and reproduce true to type through successive asexual propagations via stolons and tissue culture.

'DrisStrawFiftyFour' exhibits the following distinguishing characteristics when grown under normal horticultural practices in East Malling, Kent, United Kingdom:

1. Medium-sized fruit with a vibrant orange-red color and improved shelf-life;
2. Taller plants with fewer daughter plants per square meter;

3. Terminal leaflets with an oval shape, an entire margin, and an acute base; and
4. Shorter flowers with pale yellow-green petals.

'DrisStrawFiftyFour' is particularly characterized by its productivity, medium fruit with a vibrant orange-red color, and firm fruit with a heart shape.

DESCRIPTION OF THE DRAWINGS

This new strawberry plant is illustrated by the accompanying photographs which show fruit of the plant, as well as the flowers and leaves. The colors shown are as true as can be reasonably obtained by conventional photographic procedures. The photographs are of plants that are 10 months old.

FIG. **1** illustrates whole fruit of variety 'DrisStrawFiftyFour'.

FIG. **2** illustrates longitudinal cross-sections of fruit of variety 'DrisStrawFiftyFour'.

FIG. **3** illustrates both the upper and lower surfaces of flowers of variety 'DrisStrawFiftyFour'.

FIG. **4**A shows the upper surface of a leaf of variety 'DrisStrawFiftyFour' with three leaflets.

FIG. **4**B shows the lower surface of a leaf of variety 'DrisStrawFiftyFour' with three leaflets.

DESCRIPTION OF THE NEW VARIETY

The following detailed descriptions set forth the distinctive characteristics of 'DrisStrawFiftyFour'. The data which define these characteristics is based on observations taken in East Malling, Kent, United Kingdom from 2010 to 2016. This description is in accordance with UPOV terminology. Color designations, color descriptions, and other phenotypical descriptions may deviate from the stated values and descriptions depending upon variation in environmental, seasonal, climatic, and cultural conditions. 'DrisStrawFiftyFour' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawFiftyFour' was taken from 10 month old plants. The indicated values represent averages calculated from measurements of several plants. Color references are primarily to The R.H.S. Colour Chart of The Royal Horticultural Society of London (R.H.S.) (2007 edition). Descriptive terminology follows the Plant Identification Terminology, An Illustrated Glossary, 2nd edition by James G. Harris and Melinda Woolf Harris, unless where otherwise defined.

DETAILED BOTANICAL DESCRIPTION OF THE PLANT

Classification:

Species.—*Fragaria* x *ananassa.*

Common name.—Strawberry.

Denomination.—'DrisStrawFiftyFour'.

Parentage:

Female parent.—The proprietary variety 'DrisStrawThirtyTwo' (U.S. Plant Pat. No. 24,333).

Male parent.—The proprietary variety 'KGEM 0200' (unpatented).

Plant:

Height.—53.8 cm.

Diameter.—44.9 cm.

Number of crowns/plant.—6.

Habit.—Globose — semi-upright.

Terminal leaflets:

Length.—78.8 mm.

Width.—69.1 mm.

Length/width ratio.—1.1.

Number of teeth/terminal leaflet.—17.

Shape of teeth.—Obtuse — serrate to crenate.

Color.—Upper surface: RHS N137B (Olive green). Lower surface: RHS 137C (Moderate yellow-green).

Shape in cross section.—Slightly concave.

Number of leaflets.—Three only.

Shape.—Oval.

Base shape.—Acute.

Apex descriptor.—Rounded.

Margin.—Entire.

Margin profile.—Revolute (Margins rolled backwards).

Variegation.—Absent.

Petiole:

Length.—32 mm.

Diameter.—4.98 mm.

Pose of hairs.—Slightly upwards.

Color.—RHS 144B (Strong yellow-green).

Bract frequency (*number present on each petiole*).—0.

Petiolule:

Length.—7.11 mm.

Diameter.—2.49 mm.

Color.—RHS 144C (Strong yellow-green).

Stipule:

Length.—36.1 mm.

Width.—8.14 mm.

Stipule anthocyanin coloration.—Present. Color: RHS 63B (Strong purplish red).

Stolon:

Average number of daughter plants per square meter.—73.20.

Anthocyanin coloration.—Absent.

Diameter at bract.—3.07 mm.

Inflorescence:

Position relative to foliage.—Level with.

Flower diameter.—28.68 mm.

Petals.—Shape: Obicular. Apex: Rounded. Base: Concavo-convex. Margin: Entire. Spacing: Overlapping. Length: 10.28 mm. Width: 11.56 mm. Length/width ratio: 0.9. Petal number per flower: 6.0. Color (upper surface): RHS 155A (Pale yellow-green).

Calyx.—Diameter: 22.02 mm. Insertion of calyx: In a basin — inserted. Pose of calyx segments: Spreading — outwards.

Sepal.—Shape: Ovate. Apex: Truncate. Margin: Entire. Length: 10.93 mm. Width: 3.68 mm. Sepal number: 6.

Receptacle color.—RHS 151B (Strong greenish yellow).

Stamen.—Present. Anther color: RHS 163B (Strong orange-yellow).

Pedicel.—Attitude of hairs: Slightly upwards.

Fruiting truss:

Length.—43.2 cm.

Diameter at base of truss.—5.44 mm.

Number of berries per fruiting truss.—7.

Attitude at first picking.—Semi-erect.

Color at base of truss.—RHS 144A (Strong yellow-green).

Fruit:

Length.—45.37 mm.

Width.—41.50 mm.

Length/width ratio.—1.1.

Fruit hollow length.—34.85 mm.

Fruit hollow width.—16.23 mm.

Fruit hollow length/width ratio.—2.1.

Fruit weight.—23.4 g.

Predominant fruit shape.—Conical.

Fruit skin color.—RHS 42A (Vivid reddish orange).

Achenes.—Insertion of achenes: Below surface. Coloration (sunward side of berry): RHS 164B (Moderate orange-yellow). Coloration (shaded side of berry): RHS 165C (Moderate orange-yellow). Number of achenes per berry: 262.

Color of flesh (*excluding core*).—RHS 40A (Vivid reddish orange).

Color of core.—RHS 40B (Vivid reddish orange).

Distribution of flesh color.—Marginal and central.

Type of bearing.—Not everbearing — not remontant.

Harvest maturity (*beginning of fruit ripening when 50% of plants have ripe fruit*).—Mid-season.

Harvest interval.—Late May to mid-June.

Production.—1021 grams/plant.

Disease resistance:

Powdery mildew.—Moderately resistant.

Verticillium wilt.—Moderately resistant.

COMPARISON WITH PARENTAL AND COMMERCIAL VARIETIES

When 'DrisStrawFiftyFour' is compared to the female parent 'DrisStrawThirtyTwo' (U.S. Plant Pat. No. 24,333), 'DrisStrawFiftyFour' produces more fruit, produces fruit with a lighter, more orange-red color and that is sweeter than 'DrisStrawThirtyTwo'.

When 'DrisStrawFiftyFour' is compared to the male parent 'KGEM 0200' (unpatented), 'DrisStrawFiftyFour' produces fruit that is smaller and lighter in color than fruit of 'KGEM 0200'. Additionally, 'DrisStrawFiftyFour' produces fruit that is sweeter and has better shelf-life than 'KGEM 0200'.

When 'DrisStrawFiftyFour' is compared to the commercial variety 'DrisStrawFortySix' (U.S. Plant Pat. No. 27,711), 'DrisStrawFiftyFour' produces taller plants with fewer daughter plants per square meter than 'DrisStrawFortySix'. Additionally, 'DrisStrawFiftyFour' produces terminal leaflets with an oval shape, an entire margin, and an acute base, while 'DrisStrawFortySix' produces terminal leaflets with an orbicular shape, a crenate margin, and a slightly oblique base. Moreover, 'DrisStrawFiftyFour' produces shorter flowers with pale yellow-green petals, while 'DrisStrawFortySix' produces longer flowers with white petals.

We claim:

1. A new and distinct variety of strawberry plant named 'DrisStrawFiftyFour' as shown and described herein.

* * * * *

FIG. 1

FIG. 2

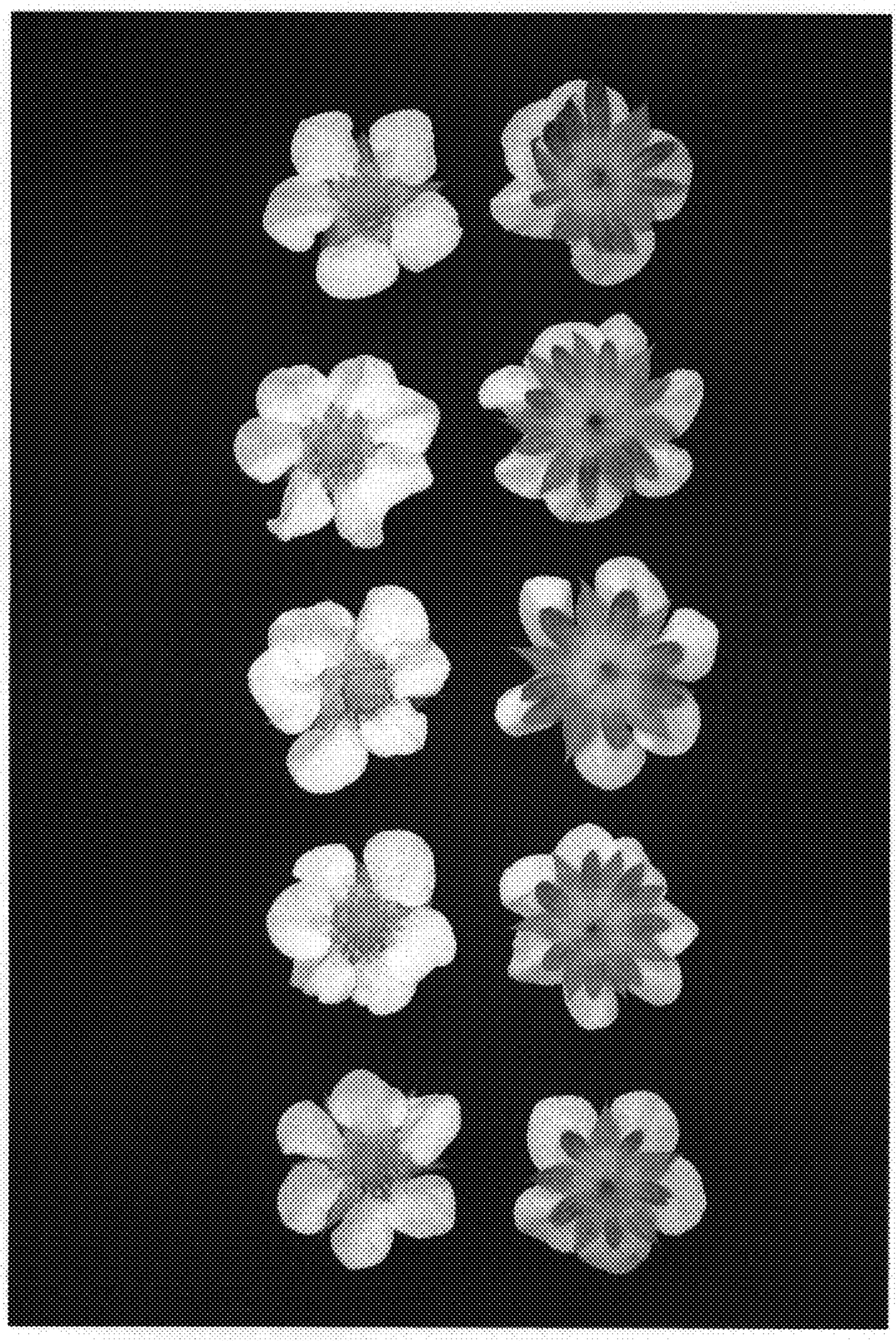

FIG. 3

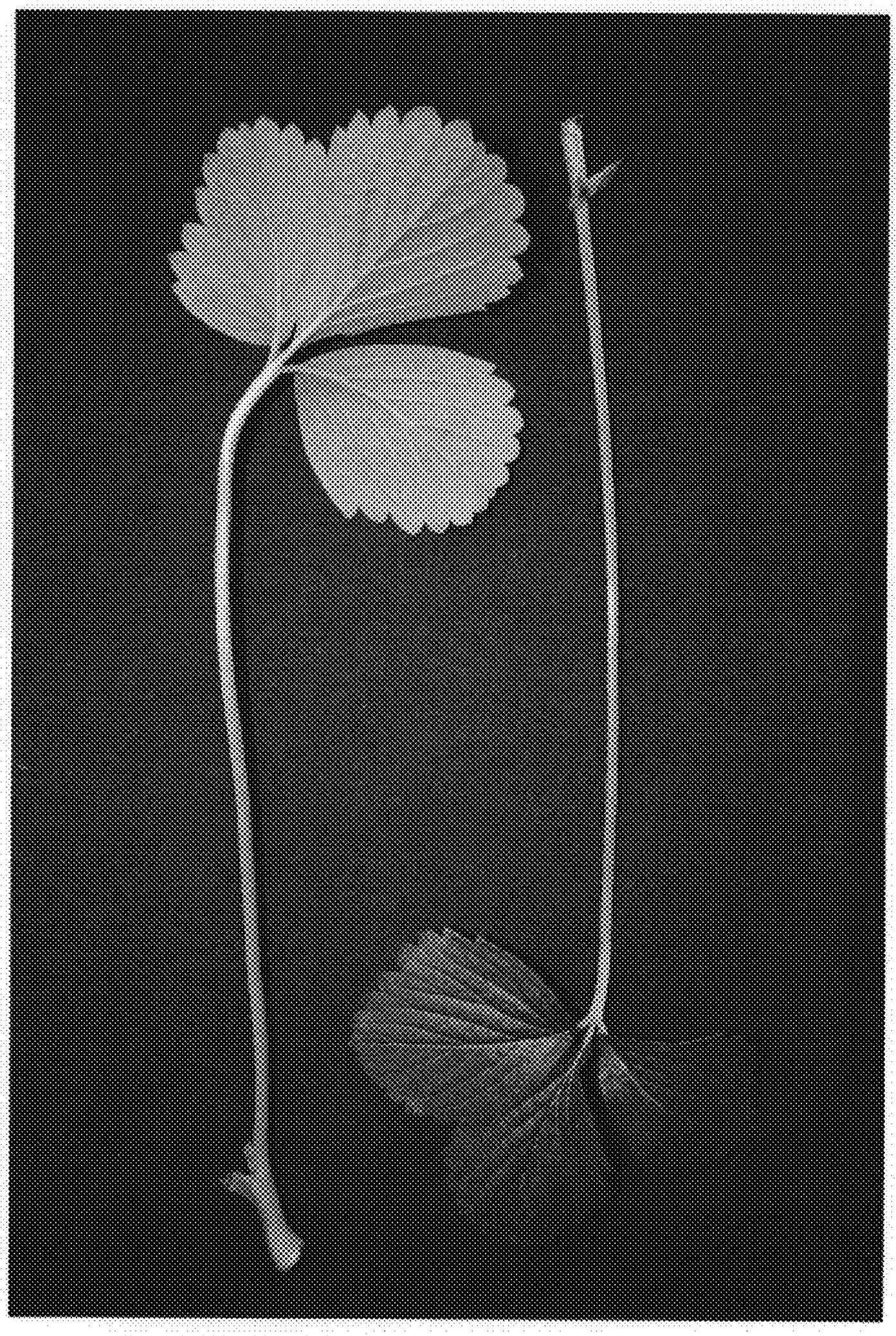

FIG. 4B

FIG. 4A