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Stewart et al.

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

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

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USPC **Plt./209**

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USPC Plt./156, 208, 209
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of strawberry plant named 'DrisStrawFiftyThree' particularly characterized by its high yield, firm fruit, and mildew tolerance, is disclosed.

4 Drawing Sheets

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STRAWBERRY PLANT VARIETY NAMED 'DRISSTRAWFIFTYTHREE'

Latin name: Botanical classification: *Fragaria* x *ananassa*.

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

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 'DrisStrawFiftyThree'.

Strawberry plant variety 'DrisStrawFiftyThree' was discovered in Monterey County, Calif. in May of 2011 and originated from a cross between the proprietary female parent 'DrisStrawFortyOne' (U.S. Plant Pat. No. 25,699) and the proprietary male parent '96Q116' (unpatented) in Shasta County, Calif. in April of 2010. A single plant was selected and asexually propagated via stolons in Monterey County, Calif.

'DrisStrawFiftyThree' was subsequently asexually propagated via stolons and underwent further testing at a farm in Monterey County, Calif. for six years (2011 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.

'DrisStrawFiftyThree' exhibits the following distinguishing characteristics when grown under normal horticultural practices in Monterey County, Calif.:

1. Uniform-sized fruit having a firm texture and improved shelf life;

2. Upright plant habit with a bearing that is partially everbearing and partially remontant; and
3. Tolerant to mildew and susceptible to *Xanthomonas fragariae*.

'DrisStrawFiftyThree' was selected for its high yield, firm fruit, and mildew tolerance.

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 8 months old.

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

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

FIG. **3** shows both the upper and lower surfaces of flowers of variety 'DrisStrawFiftyThree'.

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

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

DESCRIPTION OF THE NEW VARIETY

The following detailed descriptions set forth the distinctive characteristics of 'DrisStrawFiftyThree'. The data which define these characteristics is based on observations taken in Monterey County, Calif. from 2011 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. 'DrisStrawFiftyThree' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawFiftyThree' was taken from 8 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.—'DrisStrawFiftyThree'.

Parentage:

Female parent.—The proprietary variety 'DrisStrawFortyOne' (U.S. Plant Pat. No. 25,699).

Male parent.—The proprietary variety '96Q116' (unpatented).

Plant:

Height.—30.0 cm.

Diameter.—51.2 cm.

Number of crowns/plant.—4.

Habit.—Flat globose.

Terminal leaflets:

Length.—9.6 cm.

Width.—8.4 cm.

Length/width ratio.—1.1.
Number of teeth/terminal leaflet.—23.
Shape of teeth.—Obtuse — serrate to crenate.
Color.—Upper surface: RHS 147A (Moderate olive green). Lower surface: RHS 147B (Moderate yellow-green).
Shape in cross section.—Concave.
Number of leaflets.—Three only.
Shape.—Obicular.
Base shape.—Rounded.
Apex descriptor.—Rounded.
Margin.—Crenate.
Margin profile.—Revolute (Margins rolled backwards).
Variegation.—Absent.

Petiole:
Length.—18.0 cm.
Diameter.—4.96 mm.
Pose of hairs.—Outwards — horizontal.
Color.—RHS 144B (Strong yellow-green).
Bract frequency (*number present on each petiole*).—1.

Petiolule:
Length.—10.2 mm.
Diameter.—2.19 mm.
Color.—RHS 144B (Strong yellow-green).

Stipule:
Length.—3.7 cm.
Width.—11.74 mm.
Stipule anthocyanin coloration.—Present. Color: RHS 53B (Strong red).

Stolon:
Average number of daughter plants per square foot.—12.
Anthocyanin coloration.—Present. Color: RHS 185B (Moderate red).
Diameter at bract.—0.12 mm.

Inflorescence:
Position relative to foliage.—Level with.
Flower diameter.—22.32 mm.
Number of flowers per plant.—8.
Petals.—Shape: Obicular. Apex: Rounded. Base: Concavo-convex. Margin: Entire. Spacing: Overlapping. Length: 10.31 mm. Width: 9.24 mm. Length/width ratio: 1.1. Petal number per flower: 7. Color (upper surface): RHS 155C (Greenish white).
Calyx.—Diameter: 34.74 mm. Insertion of calyx: Set above fruit — raised. Pose of calyx segments: Reflexed — upwards.
Sepal.—Shape: Elliptical. Apex: Convex. Margin: Entire. Length: 14.24 mm. Width: 5.48 mm. Sepal number: 13.
Receptacle color.—RHS 154B (Brilliant yellow-green).
Stamen.—Present. Anther color: RHS N167B (Brownish orange).
Pedicel.—Attitude of hairs: Upwards.
Time of flowering (*50% of plants at first flower*).—Early.
Flowering interval.—February to November.

Fruiting truss:
Length.—22.1 cm.
Diameter at base of truss.—3.74 mm.
Number of berries per fruiting truss.—8.
Attitude at first picking.—Prostrate.
Color at base of truss.—RHS 144B (Strong yellow-green).

Fruit:
Length.—43.65 mm.
Width.—38.29 mm.
Length/width ratio.—1.1.
Fruit hollow length.—18.73 mm.
Fruit hollow width.—7.18 mm.
Fruit hollow length/width ratio.—2.6.
Fruit weight.—23.9 g.
Predominant fruit shape.—Conical.
Fruit skin color.—RHS 46A (Strong red).
Achenes.—Insertion of achenes: Level with surface. Coloration (sunward side of berry): RHS 184A (Greyish red). Coloration (shaded side of berry): RHS 151A (Strong greenish yellow). Number of achenes per berry: 191.
Color of flesh (*excluding core*).—RHS N45B (Moderate red).
Color of core.—RHS 41C (Moderate reddish) and RHS N155C (Pinkish white).
Distribution of flesh color.—Marginal and central.
Type of bearing.—Partially everbearing — partially remontant.
Harvest maturity (*beginning of fruit ripening when 50% of plants have ripe fruit*).—Early.
Harvest interval.—May to early November.
Production.—1995 grams/plant.

Stress resistance:
High soil salt levels.—Susceptible.

Disease and pest resistance:
Tetranychus urticae.—Moderately susceptible.
Lygus hesperus (*lygus bug*).—Moderately susceptible.
Powdery mildew.—Moderately susceptible.
Verticillium wilt.—Susceptible.
Leather rot.—Susceptible.
Xanthomonas fragariae.—Susceptible.

COMPARISON WITH PARENTAL AND COMMERCIAL VARIETIES

When 'DrisStrawFiftyThree' is compared to the female parent 'DrisStrawFortyOne' (U.S. Plant Pat. No. 25,699), 'DrisStrawFiftyThree' produces plants that are higher yielding than 'DrisStrawFortyOne'. Additionally, plants of 'DrisStrawFiftyThree' produce fruit that is more uniform, sweeter, and has a firmer texture than 'DrisStrawFortyOne'.

When 'DrisStrawFiftyThree' is compared to the male parent '96Q116' (unpatented), 'DrisStrawFiftyThree' produces fruit that is firmer and has better shelf-life than '96Q116'. Additionally, 'DrisStrawFiftyThree' is more tolerant to mildew than '96Q116'.

When 'DrisStrawFiftyThree' is compared to the commercial variety 'DrisStrawNine' (U.S. Plant Pat. No. 20,733), 'DrisStrawFiftyThree' produces a higher yield of fruit with fewer achenes per fruit than 'DrisStrawNine'. Additionally, 'DrisStrawFiftyThree' produces plants with a flat globose habit and with a bearing that is partially everbearing and partially remontant, while 'DrisStrawNine' produces plants with an upright habit and a bearing that is fully everbearing. Moreover, 'DrisStrawFiftyThree' produces plants that are susceptible to *Xanthomonas fragariae*, while 'DrisStrawNine' produces plants that are moderately susceptible to *Xanthomonas fragariae.*

We claim:

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

* * * * *

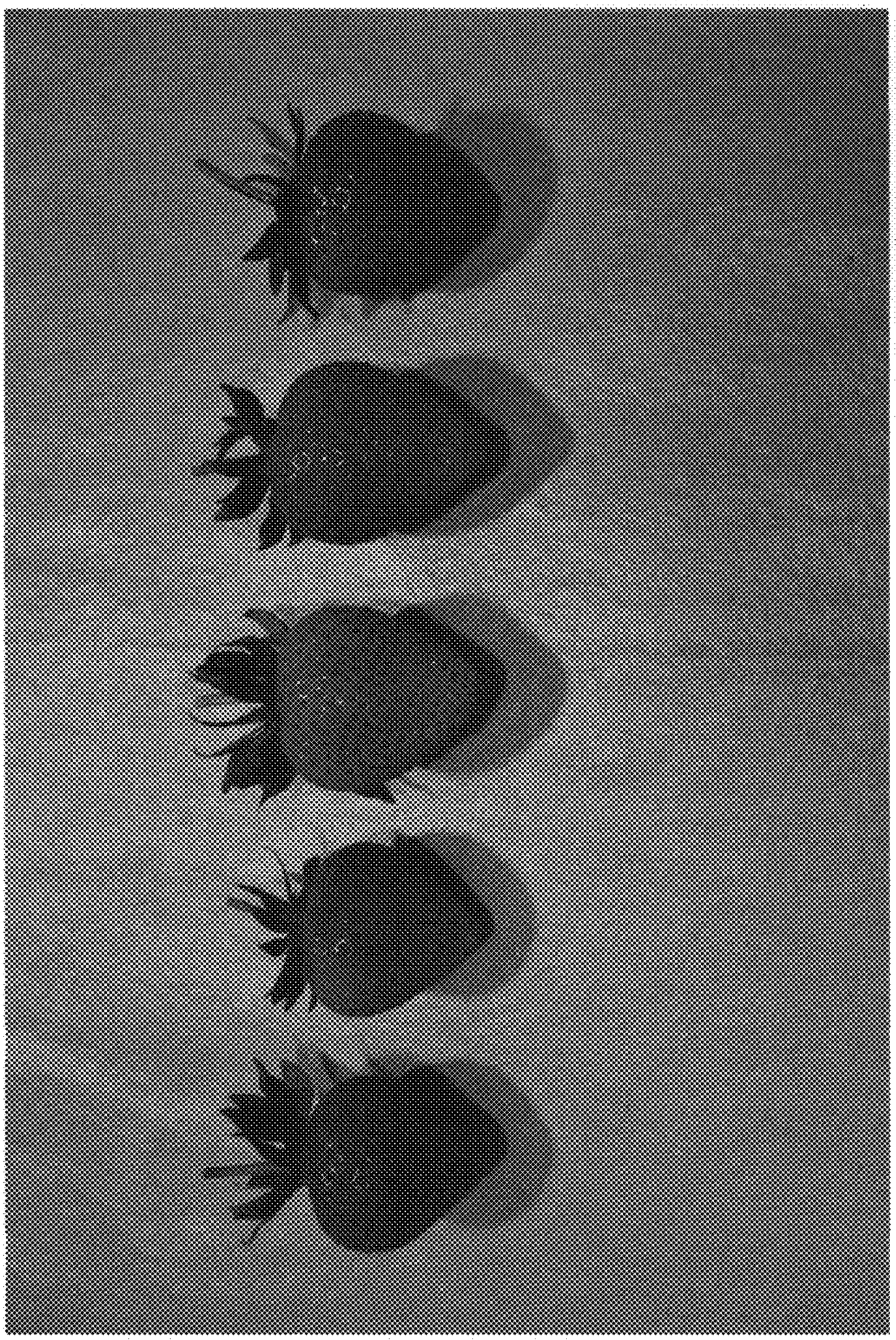

FIG. 1

FIG. 2

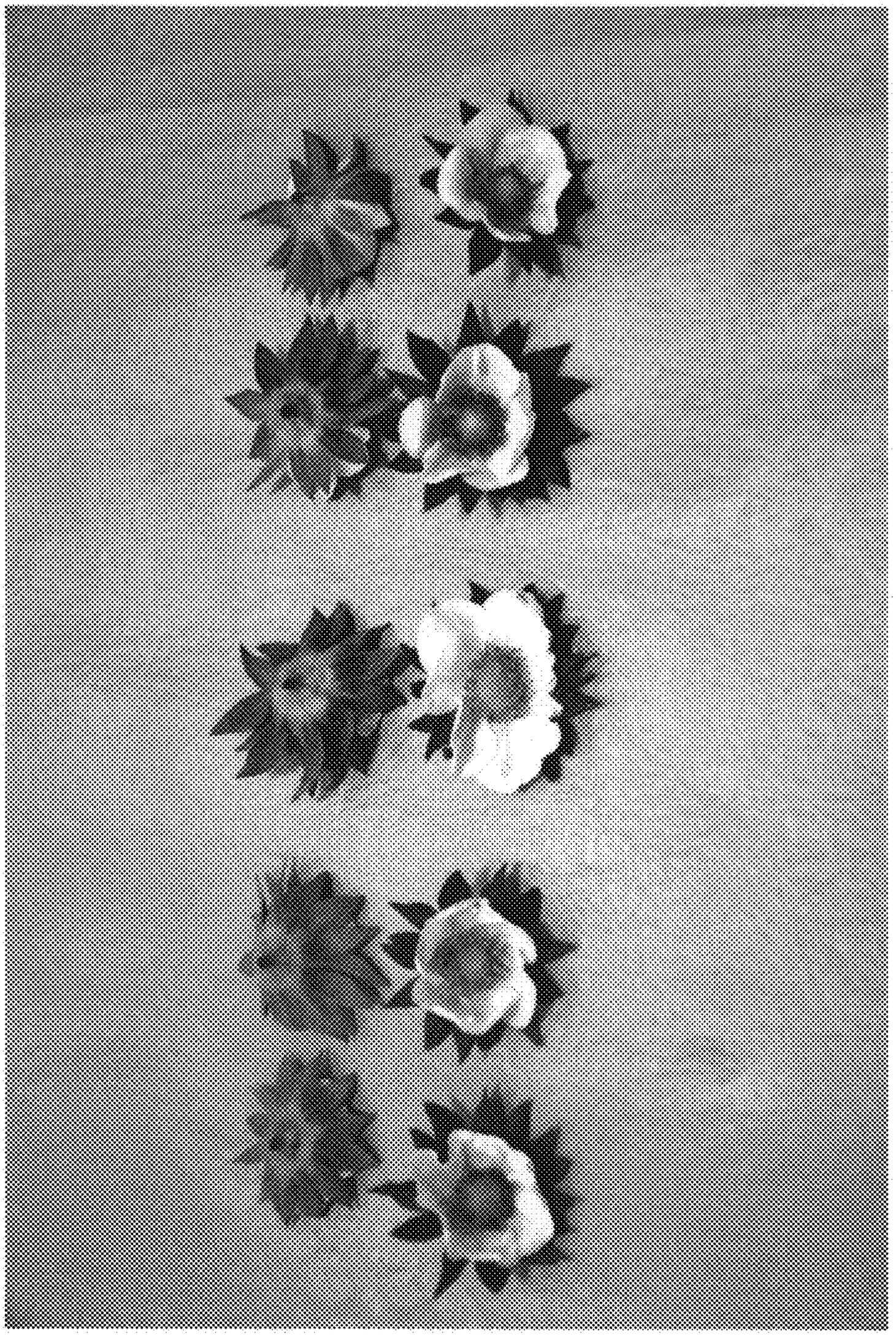

FIG. 3

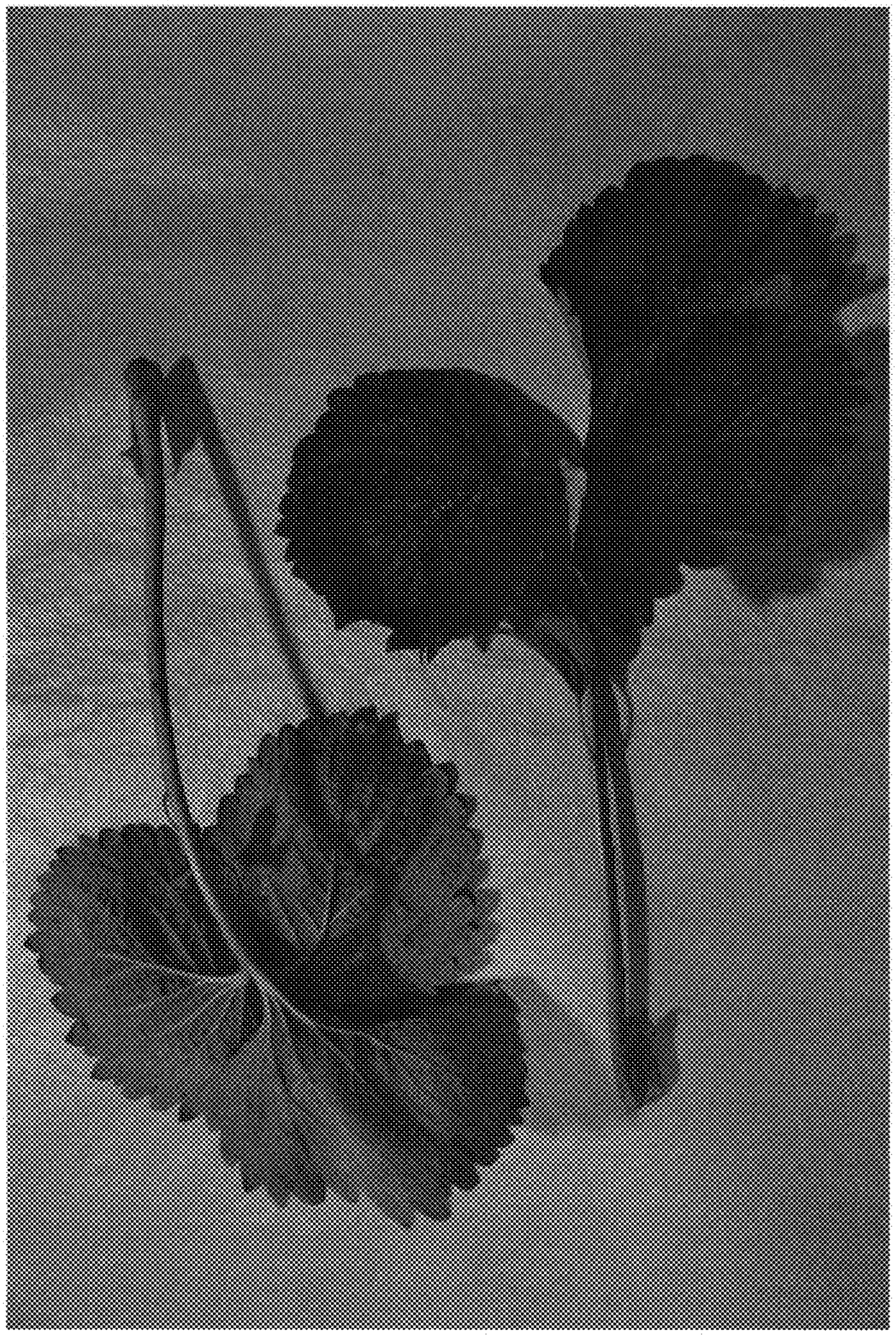

FIG. 4A

FIG. 4B