US00PP31083P2

(12) **United States Plant Patent**
Carrillo Mendoza et al.

(10) **Patent No.: US PP31,083 P2**
(45) **Date of Patent: Nov. 19, 2019**

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

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

(71) Applicant: **Driscoll's, Inc.**, Watsonville, CA (US)

(72) Inventors: **Omar Carrillo Mendoza**, La Calera (MX); **Luis Miguel Rodriguez**, Watsonville, CA (US); **Philip J. Stewart**, Watsonville, CA (US); **Maribel Martinez Negrete**, Watsonville, CA (US)

(73) Assignee: **DRISCOLL'S, INC.**, Watsonville, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **15/998,169**

(22) Filed: **Jul. 12, 2018**

(51) **Int. Cl.**
A01H 5/08 (2018.01)
A01H 6/74 (2018.01)

(52) **U.S. Cl.**
USPC **Plt./208**
CPC ***A01H 6/74*** (2018.05)

(58) **Field of Classification Search**
USPC Plt./208, 209
CPC A01H 5/0893
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP1,745 P 8/1958 Lang
PP3,981 P 11/1976 Bringhurst et al.
PP4,487 P 11/1979 Bringhurst et al.
PP4,538 P 5/1980 Bringhurst et al.
PP5,262 P 7/1984 Voth et al.
PP5,265 P 7/1984 Voth et al.
PP5,266 P 7/1984 Bringhurst et al.
PP5,300 P 10/1984 Johnson Jr.
PP5,480 P 5/1985 Nakagawa
PP5,840 P 12/1986 Johnson, Jr. et al.
PP6,191 P 5/1988 Johnson, Jr. et al.
PP6,231 P 7/1988 Johnson, Jr. et al.
PP6,578 P 1/1989 Voth et al.
PP6,579 P 1/1989 Bringhurst et al.
PP7,024 P 9/1989 Johnson, Jr. et al.
PP7,172 P 2/1990 Voth et al.
PP7,522 P 5/1991 Johnson, Jr. et al.
PP7,614 P 8/1991 Bringhurst et al.
PP7,615 P 8/1991 Bringhurst et al.
PP8,086 P 1/1993 Nelson et al.
PP8,205 P 4/1993 Nelson et al.
PP8,649 P 3/1994 Sjulin et al.
PP8,661 P 3/1994 Bringhurst et al.
PP8,708 P 5/1994 Voth et al.
PP8,745 P 5/1994 Sjulin et al.
PP9,130 P 5/1995 Sjulin et al.
PP9,909 P 6/1997 Ackerman et al.
PP10,221 P 2/1998 Sjulin et al.
PP10,534 P 8/1998 Sjulin et al.
PP10,642 P 10/1998 Amorao et al.
PP11,035 P 8/1999 Mowrey et al.
PP11,277 P 3/2000 Gilford et al.
PP11,279 P 3/2000 Gilford et al.
PP11,522 P 9/2000 Amorao et al.
PP11,548 P 10/2000 Amorao et al.
PP11,554 P 10/2000 Sjulin et al.
PP11,639 P 11/2000 Mowrey et al.
PP12,186 P2 11/2001 Gilford et al.
PP12,436 P2 3/2002 Amorao et al.
PP12,577 P2 4/2002 Amorao et al.
PP12,817 P2 7/2002 Gilford et al.
PP12,889 P2 8/2002 Lamb et al.
PP12,899 P2 9/2002 Mowrey et al.
PP13,386 P2 12/2002 Mowrey et al.
PP13,469 P3 1/2003 Larson et al.
PP14,005 P3 7/2003 Amorao et al.
PP14,062 P3 8/2003 Amorao et al.
PP14,109 P3 8/2003 Gilford et al.
PP14,771 P3 5/2004 Amorao et al.
PP15,145 P2 9/2004 Mowrey et al.
PP15,308 P2 11/2004 Sjulin et al.
PP15,375 P2 11/2004 Mowrey et al.
PP15,435 P2 12/2004 Sjulin et al.
PP15,596 P2 3/2005 Amorao et al.
PP15,731 P2 4/2005 Amorao et al.
PP15,752 P2 5/2005 Gilford et al.
PP16,070 P2 10/2005 Gilford et al.
PP16,238 P2 2/2006 Amorao et al.
PP16,241 P2 2/2006 Mowrey et al.
PP16,298 P2 2/2006 Gilford et al.
PP16,299 P2 2/2006 Gilford et al.
PP16,475 P2 4/2006 Gilford et al.
PP16,558 P3 5/2006 López
PP18,000 P2 9/2007 Meulenbroek
PP18,040 P3 9/2007 Mowrey et al.
PP18,041 P3 9/2007 Gilford
PP18,458 P2 1/2008 Ferguson et al.
PP18,575 P3 3/2008 Amorao et al.
PP18,878 P2 6/2008 Mowrey et al.
PP19,240 P2 9/2008 Gilford et al.
PP19,673 P3 2/2009 Ferguson et al.
PP19,767 P2 2/2009 Shaw et al.
PP20,248 P3 9/2009 Rogers et al.
PP20,701 P2 2/2010 Gilford et al.

(Continued)

OTHER PUBLICATIONS

Fear et al., Unpublished U.S. Appl. No. 15/998,014, filed Jun. 11, 2018, titled "Strawberry Plant Variety Named 'DrisStrawFiftyEight'".
Ferguson et al., Unpublished U.S. Appl. No. 15/731,546, filed Jun. 26, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftySix'".
Kibbe et al., Unpublished U.S. Appl. No. 15/731,542, filed Jun. 26, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyTwo'".
Kibbe et al., Unpublished U.S. Appl. No. 15/731,545, filed Jun. 26, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyOne'".

(Continued)

Primary Examiner — Kent L Bell
(74) *Attorney, Agent, or Firm* — Morrison & Foerster LLP

(57) **ABSTRACT**

A new and distinct variety of strawberry plant named 'DrisStrawSixtyThree', particularly characterized by its early yield potential, fruit size and shape, compact plant size, and plant health, is disclosed.

5 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP20,731	P2	2/2010	Mowrey et al.
PP20,733	P2	2/2010	Mowrey et al.
PP20,735	P2	2/2010	Ferguson
PP20,775	P2	2/2010	Mowrey et al.
PP20,922	P2	4/2010	Gilford et al.
PP21,538	P2	11/2010	Gilford et al.
PP21,559	P2	12/2010	Ferguson et al.
PP21,762	P2	3/2011	Stewart et al.
PP22,040	P3	7/2011	Stewart et al.
PP22,218	P2	11/2011	Ferguson
PP22,247	P2	11/2011	Ferguson
PP23,107	P2	10/2012	Ferguson et al.
PP23,148	P2	10/2012	Gilford et al.
PP23,377	P2	2/2013	Ferguson et al.
PP23,378	P2	2/2013	Pullen et al.
PP23,382	P2	2/2013	Ferguson et al.
PP23,383	P2	2/2013	Ferguson et al.
PP23,400	P2	2/2013	Ferguson et al.
PP23,401	P2	2/2013	Pullen et al.
PP23,459	P2	3/2013	Stewart et al.
PP23,506	P3	4/2013	Ferguson et al.
PP23,517	P3	4/2013	Ferguson et al.
PP24,096	P3	12/2013	Fear et al.
PP24,317	P3	3/2014	Ferguson et al.
PP24,333	P3	3/2014	Vitten et al.
PP24,395	P3	4/2014	Vitten et al.
PP24,533	P3	6/2014	Ferguson et al.
PP24,745	P2	8/2014	Vitten et al.
PP25,408	P3	4/2015	Vitten et al.
PP25,437	P3	4/2015	Vitten et al.
PP25,698	P3	7/2015	Ferguson et al.
PP25,699	P3	7/2015	Stewart et al.
PP25,747	P3	7/2015	Kibbe et al.
PP25,866	P3	9/2015	Ferguson et al.
PP26,800	P3	6/2016	Stewart et al.
PP26,801	P3	6/2016	Stewart et al.
PP26,802	P3	6/2016	Rodriguez Alcazar et al.
PP27,442	P2	12/2016	Kibbe et al.
PP27,645	P3	2/2017	Vitten et al.
PP27,682	P3	2/2017	Kibbe et al.
PP27,711	P3	2/2017	Vitten et al.
PP27,813	P3	3/2017	Ferguson et al.
PP29,289	P3	5/2018	Vitten et al.
2003/0079263	P1	4/2003	Gilford et al.
2013/0276182	P1	10/2013	Fear et al.

OTHER PUBLICATIONS

Mendoza, et al., Unpublished U.S. Appl. No. 15/998,020, filed Jun. 12, 2018, titled "Strawberry Plant Variety Named 'DrisStrawSixtyOne'".

Mendoza, et al., Unpublished U.S. Appl. No. 15/998,170, filed Jul. 12, 2018, titled "Strawberry Plant Variety Named 'DrisStrawSixtyTwo'".

Pakozdi et al., Unpublished U.S. Appl. No. 15/998,015, filed Jun. 11, 2018, titled "Strawberry Plant Variety Named 'DrisStrawFiftyNine'".

Pakozdi et al., Unpublished U.S. Appl. No. 15/998,028, filed Jun. 14, 2018, titled "Strawberry Plant Variety Named 'DrisStrawSixtyFive'".

Stewart et al., Unpublished U.S. Appl. No. 15/731,415, filed Jun. 6, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyThree'".

Stewart et al., Unpublished U.S. Appl. No. 15/731,421, filed Jun. 6, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftySeven'".

Stewart et al., Unpublished U.S. Appl. No. 15/998,031, filed Jun. 14, 2018, titled "Strawberry Plant Variety Named 'DrisStrawSixtyFour'".

Vitten et al., Unpublished U.S. Appl. No. 15/731,559, filed Jun. 27, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyFour'".

Vitten et al., Unpublished U.S. Appl. No. 15/731,560, filed Jun. 27, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyFive'".

STRAWBERRY PLANT VARIETY NAMED 'DRISSTRAWSIXTYTHREE'

Latin name:

Botanical classification: *Fragaria* x *ananassa.*

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

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 'DrisStrawSixtyThree'.

Strawberry plant variety 'DrisStrawSixtyThree' was selected in Tapalpa, Mexico in 2012, and originated from a cross between the proprietary female parent 'DrisStrawTwentyFive' (U.S. Plant Pat. No. 23,382) and the proprietary male parent '7Q136' (unpatented). A single plant was selected and asexually propagated via stolons in Zapotlan el Grande, Mexico in 2012.

'DrisStrawSixtyThree' was subsequently asexually propagated via stolons, and underwent testing at a farm in Tapalpa, Mexico for six years. The present variety has been found to be stable and reproduce true to type through successive asexual propagations via stolons.

'DrisStrawSixtyThree' exhibits the following distinguishing characteristics over other similar varieties when grown under normal horticultural practices in Tapalpa, Mexico:

1. Yield potential;
2. Fruit size; and
3. Disease resistances.

'DrisStrawSixtyThree' was selected for its early yield potential, fruit size and shape, compact plant size, and plant health.

DESCRIPTION OF THE DRAWINGS

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

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

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

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

FIG. **4**A illustrates the upper surface of a leaf of variety 'DrisStrawSixtyThree'.

FIG. **4**B illustrates the lower surface of a leaf of variety 'DrisStrawSixtyThree'.

FIG. **5** illustrates whole plants of variety 'DrisStrawSixtyThree'.

DESCRIPTION OF THE NEW VARIETY

The following detailed descriptions set forth the distinctive characteristics of 'DrisStrawSixtyThree'. The data which define these characteristics is based on observations taken in Tapalpa, Mexico for six years. 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. 'DrisStrawSixtyThree' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawSixtyThree' was taken from plants that were six months old. 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.—'DrisStrawSixtyThree'.

Parentage:

Female parent.—The proprietary variety 'DrisStrawTwentyFive' (U.S. Plant Pat. No. 23,382)

Male parent.—The proprietary variety '7Q136' (unpatented).

Plant:

Height.—21.5 cm.

Diameter.—35.7 cm.

Number of crowns/plant.—7.

Growth habit.—Spreading.

Stolon:

Average number of daughter plants per square foot.—10.

Diameter at bract.—3.13 mm.

Anthocyanin coloration.—Absent.

Leaf:

Number of leaflets.—Three only.

Color of upper surface.—RHS 136A (Dark green).

Color of lower surface.—RHS 138A (Moderate yellowish green).

Variegation.—Absent.

Terminal leaflets.—Length: 9.8 cm. Width: 8.6 cm. Length/width ratio: 1.1. Number of teeth/terminal leaflet: 28. Leaflet shape: Obicular. Shape of apex: Rounded. Shape of base: Rounded. Margin: Serrate to crenate. Shape in cross section: Concave.

Petiole.—Length: 15.5 cm. Diameter: 5.25 mm. Color: RHS 145B (Light yellow green). Attitude of hairs: Upwards. Bract frequency (number present on each petiole): 2.

Petiolule.—Length: 10.00 mm. Diameter: 3.05 mm. Color: RHS 145B (Light yellow green).

Stipule.—Length: 2.0 cm. Width: 17.58 mm. Anthocyanin coloration: Present. Anthocyanin color: RHS 50B (Deep pink).

Inflorescence:

Position in relation to foliage.—Above.

Pedicel.—Length: 10 cm. Diameter: 2.5 mm. Color: RHS 145C (Light yellow green). Attitude of hairs: Upwards.

Flower.—Flower diameter (petal tip to petal tip on non-flattened flower): 29.10 mm. Flower depth: 13 mm. Arrangement of petals: Overlapping. Stamen: Present. Typical and observed number of flowers per plant: 16.80.

Petal.—Length: 15.40 mm. Width: 15.50 mm. Petal shape: Orbicular. Shape of apex: Rounded. Shape of base: Concavo-convex. Margin: Entire. Length/width ratio: 1.0. Typical and observed petal number: 6. Color of upper surface: RHS 157D (Greenish white). Color of lower surface: RHS 155C (Greenish white).

Calyx.—Diameter (sepal tip to sepal tip, measured on back of flower): 43.11 mm.

Sepal.—Length (sepal tip to point of attachment to receptacle): 22.40 mm. Width: 15.40 mm. Color of upper surface: RHS 139B (Moderate yellowish green). Color of lower surface: RHS 144A (Strong yellowish green). Sepal shape: Elliptical. Shape of apex: Truncate. Margin: Entire. Typical and observed sepal number: approximately 7.

Fruit:

Length.—46.70 mm.

Width.—39.00 mm.

Weight (*individual fruit*).—26.8 g.

Length/width ratio.—1.2.

Fruit hollow length.—20.40 mm.

Fruit hollow width.—10.40 mm.

Fruit hollow length/width ratio.—2.0.

Shape.—Conical.

Color.—RHS 45B (Vivid red).

Position of achenes.—Level with surface.

Color of achenes.—RHS 1B (Brilliant greenish yellow).

Position of calyx attachment.—Level with fruit.

Attitude of sepals.—Outwards.

Color of flesh (*excluding core*).—RHS 44A (Vivid red).

Color of core.—RHS 43B (Vivid reddish orange).

Fruiting truss.—Length: 26 cm. Diameter: 5 mm. Color: RHS 144B (Strong yellow green). Number of berries per truss: 7 berries.

Production:

Flowering interval.—October to April.

Harvest interval.—October to April.

Type of bearing.—Not remontant.

Productivity.—30199 kg to 35941 kg of fruit per hectare per season from six-month-old plants when grown in Tapalpa, Mexico.

Resistance to abiotic stress, pests and diseases:

Two-spotted spider mite (*tetranychus urticae*).—Moderately susceptible.

Botrytis fruit rot (*botrytis cinerea*).—Moderately resistant.

Powdery mildew (*podosphaera macularis*).—Moderately resistant.

Xanthomonas fragariae.—Moderately resistant.

COMPARISON WITH PARENTAL AND COMMERCIAL VARIETIES

'DrisStrawSixtyThree' differs from the proprietary female parent 'DrisStrawTwentyFive' (U.S. Plant Pat. No. 23,382) in that plants of 'DrisStrawSixtyThree' produce higher yields of fruit than plants of 'DrisStrawTwentyFive'. Moreover, plants of 'DrisStrawSixtyThree' are moderately resistant to *botrytis* fruit rot and powdery mildew, whereas plants of 'DrisStrawTwentyFive' are susceptible to *botrytis* fruit rot and powdery mildew. Additionally, fruit of 'DrisStrawSixtyThree' are more firm than fruit of 'DrisStrawTwentyFive'.

'DrisStrawSixtyThree' differs from the proprietary male parent '7Q136' (unpatented) in that fruit of 'DrisStrawSixtyThree' are smaller in size, less firm, and have a sweeter flavor than fruit of '7Q136'.

'DrisStrawSixtyThree' differs from the commercial variety 'DrisStrawTwentySeven' (U.S. Plant Pat. No. 23,400) in that plants of 'DrisStrawSixtyThree' have few flowers, while plants of 'DrisStrawTwentySeven' have a medium number of flowers. Additionally, plants of 'DrisStrawSixtyThree' have stolons where anthocyanin coloration is absent, while plants of 'DrisStrawTwentySeven' have stolons where anthocyanin coloration is present. Moreover, 'DrisStrawSixtyThree' has a shape of base of terminal leaflet that is rounded, a terminal leaflet margin that is serrate to crenate, attitude of petiole hairs that is upwards, position of achenes that is level with surface of fruit, position of calyx attachment that is level with fruit, and moderate resistance to *botrytis* fruit rot, powdery mildew, and *Xanthomonas fragariae*; whereas 'DrisStrawTwentySeven' has a shape of base of terminal leaflet that is obtuse, a terminal leaflet margin that is serrate, attitude of petiole hairs that is outwards-horizontal, position of achenes that is below surface of fruit, position of calyx attachment that is above fruit, is susceptible to *botrytis* fruit rot, and is moderately susceptible to powdery mildew and *Xanthomonas fragariae*

'DrisStrawSixtyThree' differs from the commercial variety 'Driscoll El Dorado' (U.S. Plant Pat. No. 16,238) in that plants of 'DrisStrawSixtyThree' have sparse foliage and are moderately resistant to *botrytis* fruit rot and *Xanthomonas fragariae*, while plants of 'Driscoll El Dorado' have dense foliage, are susceptible to *botrytis* fruit rot, and moderately susceptible to *Xanthomonas fragariae*. Additionally, terminal leaflets of 'DrisStrawSixtyThree' have a rounded shape of base, while terminal leaflets of 'Driscoll El Dorado' have an acute shape of base. Moreover, fruit of 'DrisStrawSixtyThree' have a position of achenes that is level with surface of fruit and medium red flesh, while fruit of 'Driscoll El Dorado' have a position of achenes that is below the surface of fruit and orange red flesh. Further, 'DrisStrawSixtyThree'

has a bearing that is not remontant, while 'Driscoll El Dorado' has a bearing that is partially remontant.

We claim:

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

* * * * *

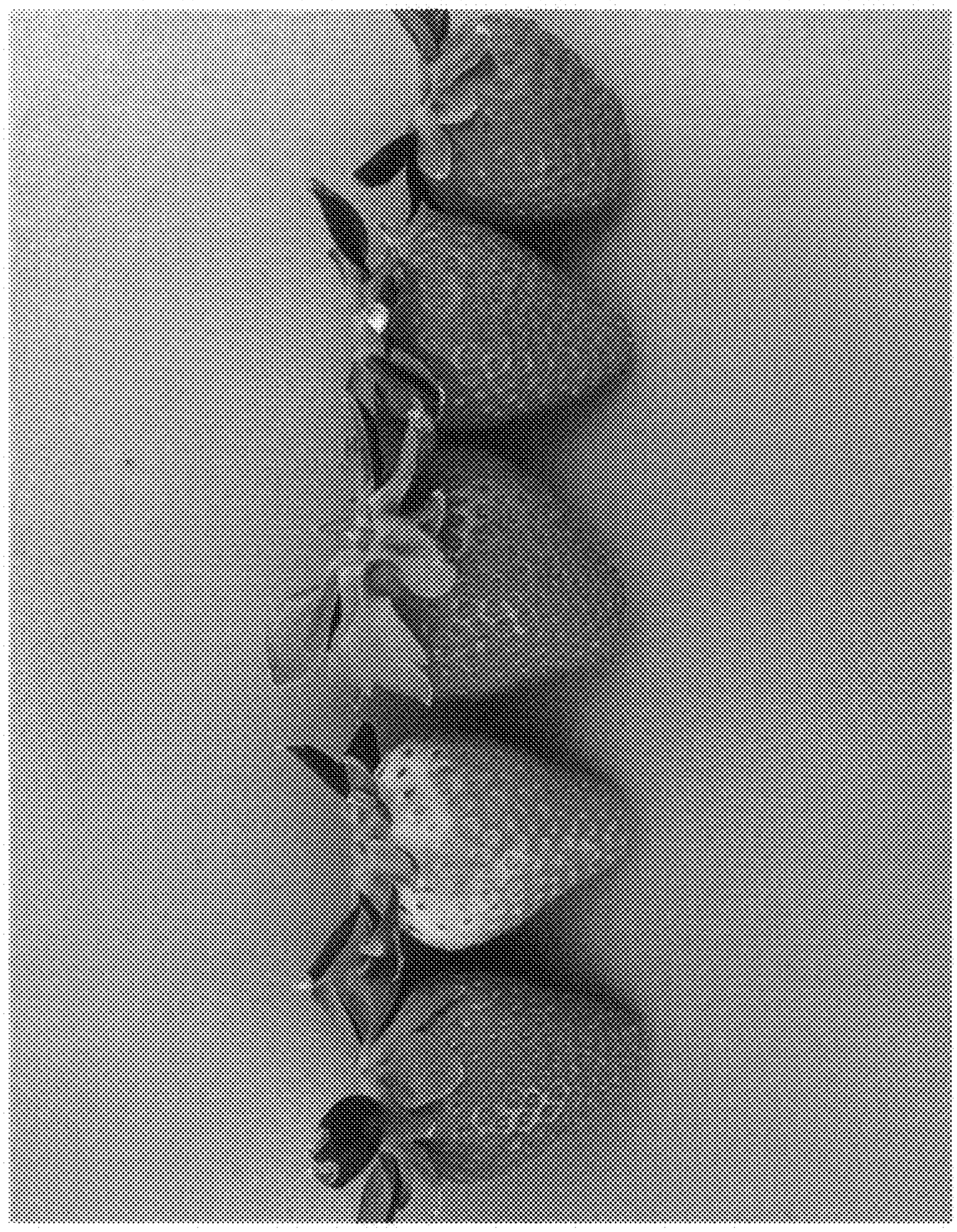

FIG. 1

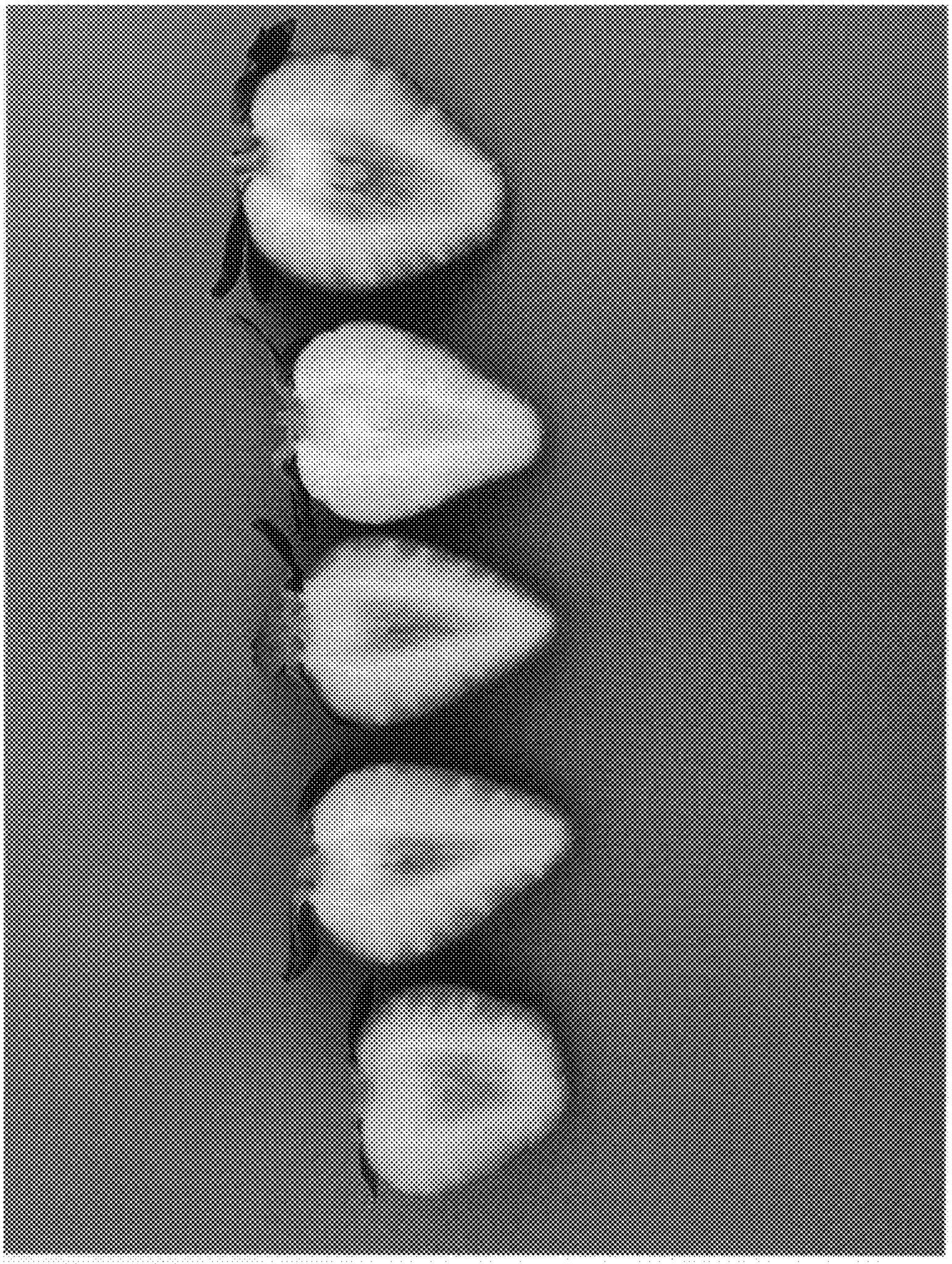

FIG. 2

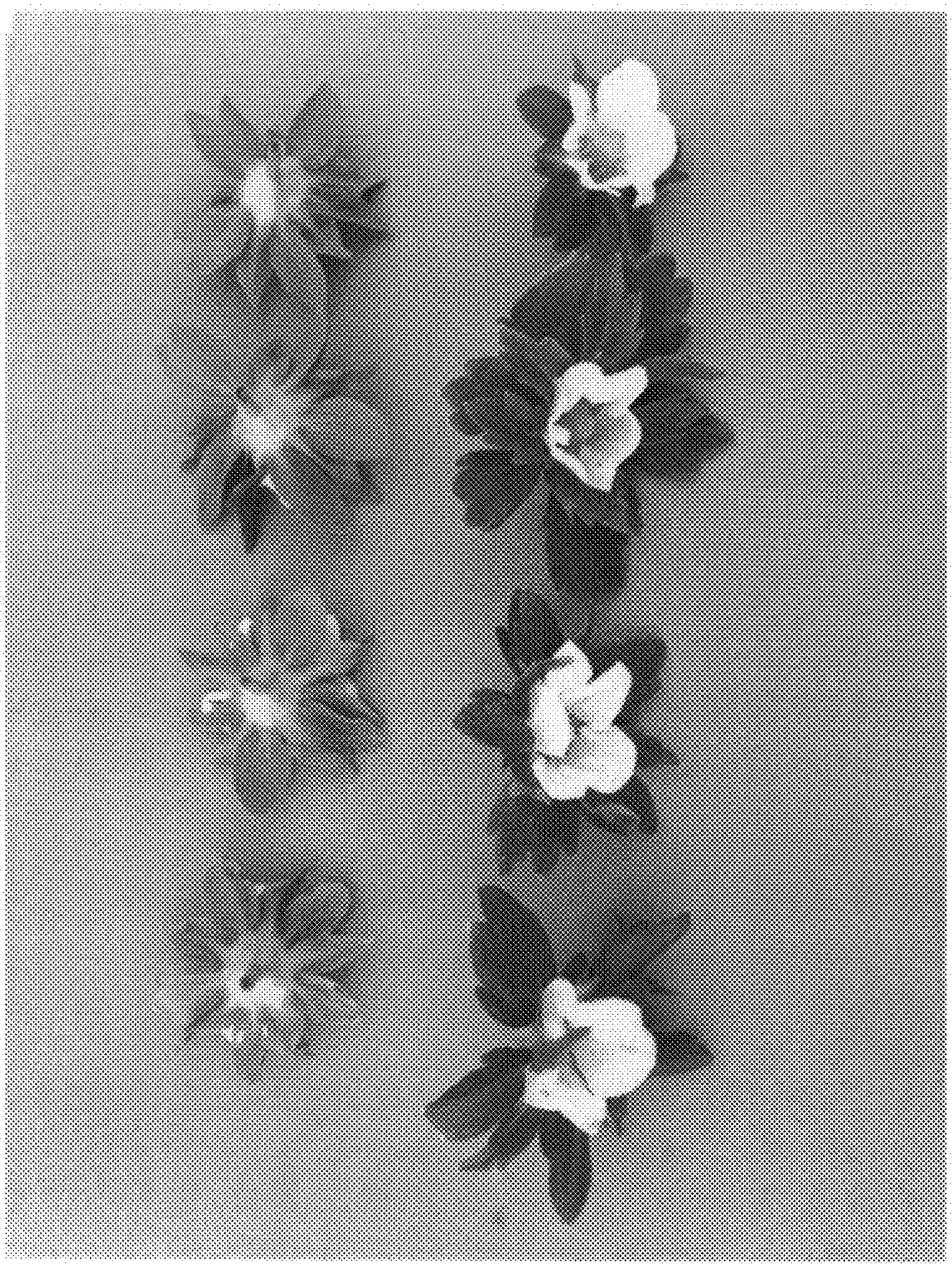

FIG. 3

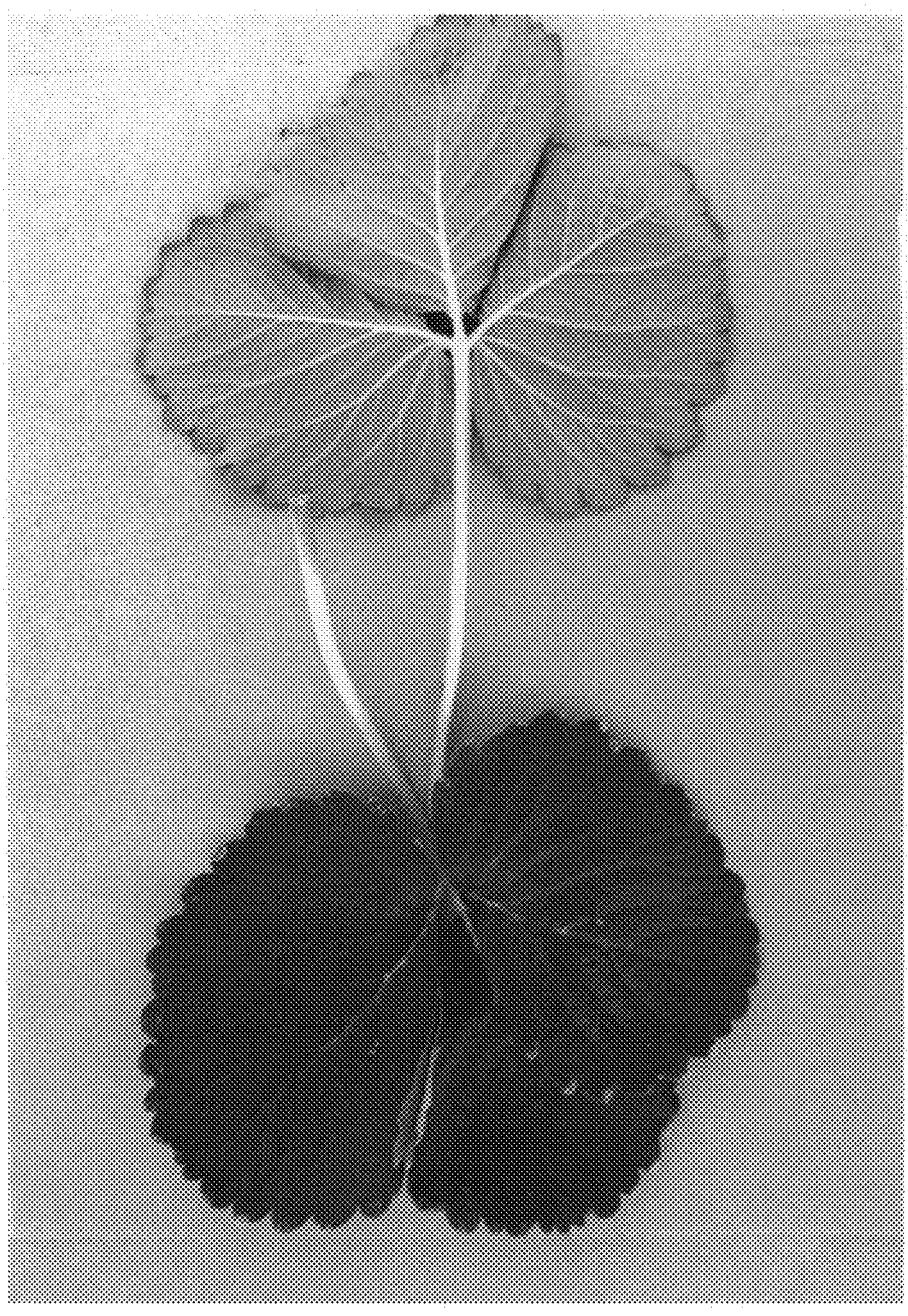

FIG. 4B

FIG. 4A

FIG. 5