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Vitten et al.

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- (54) **STRAWBERRY PLANT VARIETY NAMED ‘DRISSTRAWFIFTYFIVE’**
- (50) Latin Name: *Fragaria x ananassa*
Varietal Denomination: **DrisStrawFiftyFive**
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- (52) **U.S. Cl.**
USPC **Plt./208**
- (58) **Field of Classification Search**
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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 Sjulín et al.
 PP8,661 P 3/1994 Bringhurst et al.
 PP8,708 P 5/1994 Voth et al.
 PP8,745 P 5/1994 Sjulín et al.
 PP9,130 P 5/1995 Sjulín et al.
 PP9,909 P 6/1997 Ackerman et al.
 PP10,221 P 2/1998 Sjulín et al.
 PP10,534 P 8/1998 Sjulín 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 Sjulín 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 Sjulín et al.
 PP15,375 P2 11/2004 Mowrey et al.
 PP15,435 P2 12/2004 Sjulín 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.
 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

(Continued)

OTHER PUBLICATIONS

Unpublished U.S. Appl. No. 14/999,062, filed Mar. 25, 2016, titled “Strawberry Plant Named ‘DrisStrawFifty’”.

(Continued)

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(57) **ABSTRACT**

A new and distinct variety of strawberry plant named ‘DrisStrawFiftyFive’ particularly characterized by its uniform fruit shape, large and uniform fruit size, and great flavor, is disclosed.

4 Drawing Sheets

(56)

References Cited

U.S. PATENT DOCUMENTS

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.
 2003/0079263 P1 4/2003 Gilford et al.
 2013/0276182 P1 10/2013 Fear et al.

OTHER PUBLICATIONS

Unpublished U.S. Appl. No. 15/731,415, filed Jun. 6, 2017, titled
 "Strawberry Plant Variety Named 'DrisStrawFiftyThree'".
 Unpublished U.S. Appl. No. 15/731,421, filed Jun. 6, 2017, titled
 "Strawberry Plant Variety Named 'DrisStrawFiftySeven'".
 Unpublished U.S. Appl. No. 15/731,542, filed Jun. 26, 2017, titled
 "Strawberry Plant Variety Named 'DrisStrawFiftyTwo'".
 Unpublished U.S. Appl. No. 15/731,545, filed Jun. 26, 2017, titled
 "Strawberry Plant Variety Named 'DrisStrawFiftyOne'".
 Unpublished U.S. Appl. No. 15/731,546, filed Jun. 26, 2017, titled
 "Strawberry Plant Variety Named 'DrisStrawFiftySix'".
 Unpublished U.S. Appl. No. 15/731,559, filed Jun. 27, 2017, titled
 "Strawberry Plant Variety Named 'DrisStrawFiftyFour'".

**STRAWBERRY PLANT VARIETY NAMED
'DRISSTRAWFIFTYFIVE'**

Latin name:

Botanical classification: *Fragaria x ananassa*.

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

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 'DrisStrawFiftyFive'.

Strawberry plant variety 'DrisStrawFiftyFive' was discovered in East Mailing, Kent, United Kingdom in May of 2011 and originated from a cross between the proprietary female parent 'KGEM0102' (unpatented) and the proprietary male parent 'RUK219-001' (unpatented). A single plant was selected and asexually propagated via stolons in East Mailing, Kent, United Kingdom in July of 2011.

'DrisStrawFiftyFive' was subsequently asexually propagated via stolons, and underwent further testing at a farm in East Mailing, Kent, United Kingdom 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.

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

1. Vivid red fruit;
2. Globose to semi-upright plant habit;
3. Small plant size with a long truss structure; and
4. Resistance to powdery mildew and Verticillium wilt.

'DrisStrawFiftyFive' is particularly characterized by its uniform fruit shape, large and uniform fruit size, and great flavor.

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 'DrisStrawFiftyFive'.

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

FIG. 3A shows the lower surface of a leaf of variety 'DrisStrawFiftyFive' with three leaflets. FIG. 3B shows the upper surface of a leaf of variety 'DrisStrawFiftyFive' with three leaflets.

FIG. 4 illustrates the upper and lower surfaces of flowers of variety 'DrisStrawFiftyFive'.

DESCRIPTION OF THE NEW VARIETY

The following detailed descriptions set forth the distinctive characteristics of 'DrisStrawFiftyFive'. The data which define these characteristics is based on observations taken in East Mailing, Kent, United Kingdom 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. 'DrisStrawFiftyFive' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawFiftyFive' was taken from plants that were 10 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.—'DrisStrawFiftyFive'.

Parentage:

Female parent.—The proprietary variety 'KGEM0102' (unpatented).

Male parent.—The proprietary variety 'RUK219-001' (unpatented).

Plant:

Height.—34.6 cm.

Diameter.—41.6 cm.

Number of crowns/plant.—6.

Habit.—Globose — semi-upright.

Terminal leaflets:

Length.—11.1 cm.

Width.—10.2 cm.

Length/width ratio.—1.1.

Number of teeth/terminal leaflet.—28.

Shape of teeth.—Obtuse — serrate to crenate.
Color.—Upper surface: RHS 137A (Moderate olive-green). Lower surface: RHS 137C (Moderate yellow-green).
Shape in cross section.—Slightly concave.
Number of leaflets.—Three only.
Shape.—Obicular.
Base shape.—Slightly oblique.
Apex descriptor.—Rounded.
Margin.—Crenate.
Margin profile.—Revolvate (margins rolled backwards).
Variation.—Absent.

Petiole:
Length.—25.2 cm.
Diameter.—7.34 mm.
Pose of hairs.—Outwards — Horizontal.
Color.—RHS 143C (Strong yellow-green).
Bract frequency (number present on each petiole).—0.

Petiolule:
Length.—11.77 mm.
Diameter.—2.32 mm.
Color.—RHS 143C (Strong yellow-green).

Stipule:
Length.—3.6 cm.
Width.—11.18 mm.
Stipule anthocyanin coloration.—Present.
Color.—RHS 63D (Light purplish pink).

Stolon:
Average number of daughter plants per square foot.—17-20.
Anthocyanin coloration.—Present.
Color.—RHS 63C (Strong purplish pink).
Diameter at bract.—2.74 mm.

Inflorescence:
Position relative to foliage.—Beneath.
Flower diameter.—28.54 mm.
Petals.—Shape: Obicular. Apex: Rounded. Base: Concavo-convex. Margin: Entire. Spacing: Free (few touching observed). Length: 12.58 mm. Width: 11.00 mm. Length/width ratio: 1.1. Petal number per flower: 5. Color (upper surface): RHS NN155A (Yellowish white).
Calyx.—Diameter: 26.15 mm. Insertion of calyx: Set above fruit — raised. Pose of calyx segments: Reflexed-upwards to spreading-outwards.
Sepal.—Shape: Elliptical. Apex: Truncate. Margin: Entire. Length: 9.84 mm. Width: 4.37 mm. Sepal number: 5.
Receptacle color.—RHS 145A (Strong yellow-green).
Stamen.—Present. Anther color: RHS 163B (Strong orange-yellow).
Pedicel.—Attitude of hairs: Upwards.

Fruiting truss:
Length.—28.2 cm.
Diameter at base of truss.—5.33 mm.
Number of berries per fruiting truss.—6.
Attitude at first picking.—Erect to semi-erect.

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

Fruit:
Length.—39.37 mm.
Width.—32.79 mm.
Length/width ratio.—1.2.
Fruit hollow length.—23.16 mm.
Fruit hollow width.—14.76 mm.
Fruit hollow length/width ratio.—1.6.
Fruit weight.—17.70 g.
Predominant fruit shape.—Conical.
Fruit skin color.—RHS 44A (Vivid red).
Achenes.—Insertion of achenes: Level with surface. Coloration (sunward side of berry): RHS 164A (Brownish orange). Coloration (shaded side of berry): RHS N164B (Moderate orange-yellow). Achenes weight: 0.0005 g.
Color of flesh (excluding core).—RHS 44B (Vivid reddish orange).
Color of core.—RHS 44C (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.—May to June.
Production.—1188 g/plant.

Disease resistance:
Powdery mildew.—Resistant.
Verticillium wilt.—Moderately resistant.

COMPARISON WITH PARENTAL AND COMMERCIAL VARIETIES

When 'DrisStrawFiftyFive' is compared to the female parent 'KGEM0102' (unpatented), 'DrisStrawFiftyFive' produces plants with a more open, upright plant habit, and with longer, more exposed and less complex trusses. Additionally, 'DrisStrawFiftyFive' produces fruit with better shelf-life than 'KGEM0102'.

When 'DrisStrawFiftyFive' is compared to the male parent 'RUK219-001' (unpatented), 'DrisStrawFiftyFive' produces fruit with a lighter red color.

When 'DrisStrawFiftyFive' is compared to the commercial variety 'DrisStrawThirtyFive' (U.S. Plant Pat. No. 24,745), 'DrisStrawFiftyFive' produces plants that are shorter and smaller with a less open, upright plant habit and truss structure than 'DrisStrawThirtyFive'. Additionally, 'DrisStrawFiftyFive' produces fruit with a more vivid red color, and has resistance to powdery mildew and Verticillium wilt, while 'DrisStrawThirtyFive' produces fruit with a medium red color with no observed resistance to powdery mildew and Verticillium wilt.

We claim:

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

* * * * *

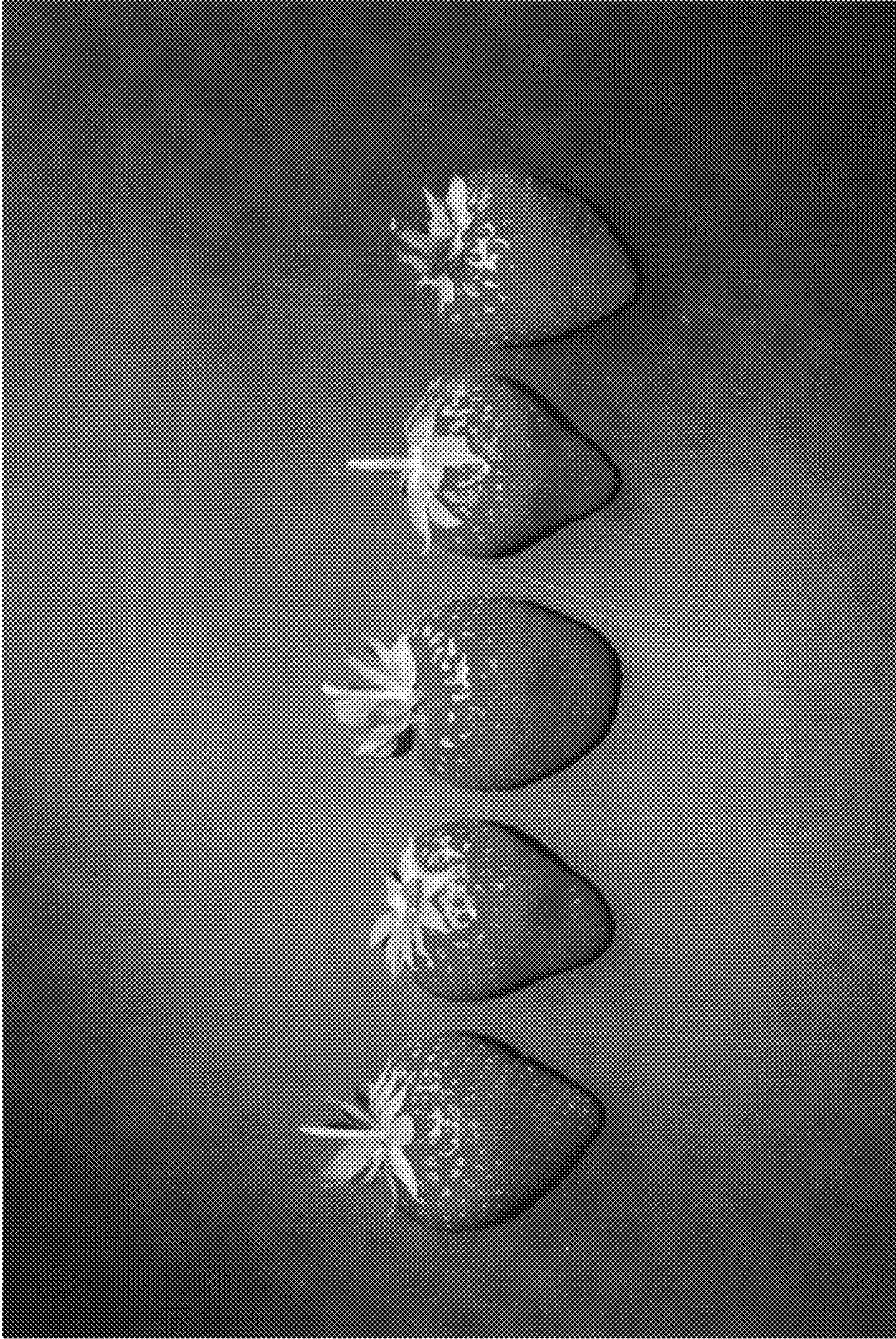


FIG. 1

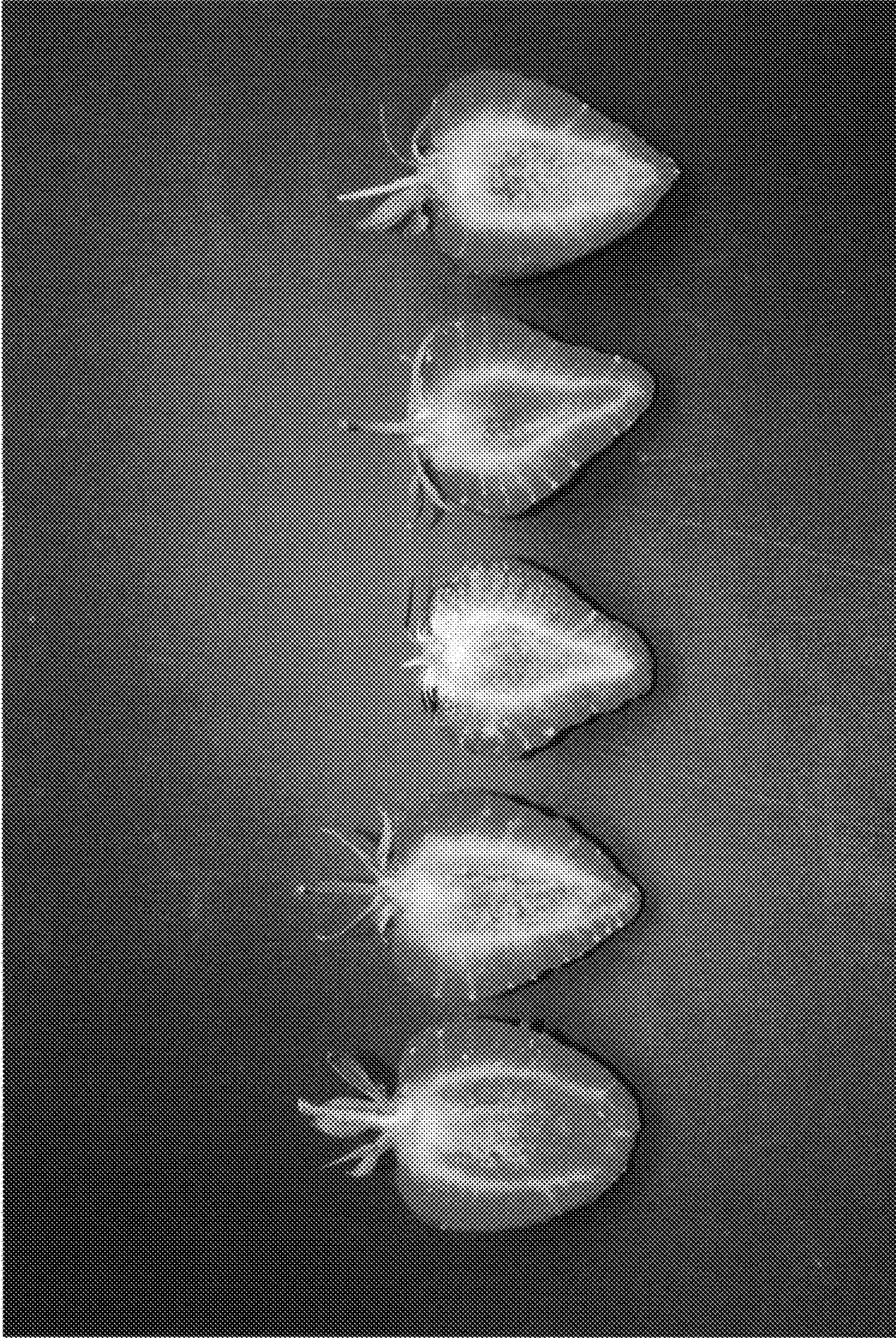


FIG. 2

FIG. 3A

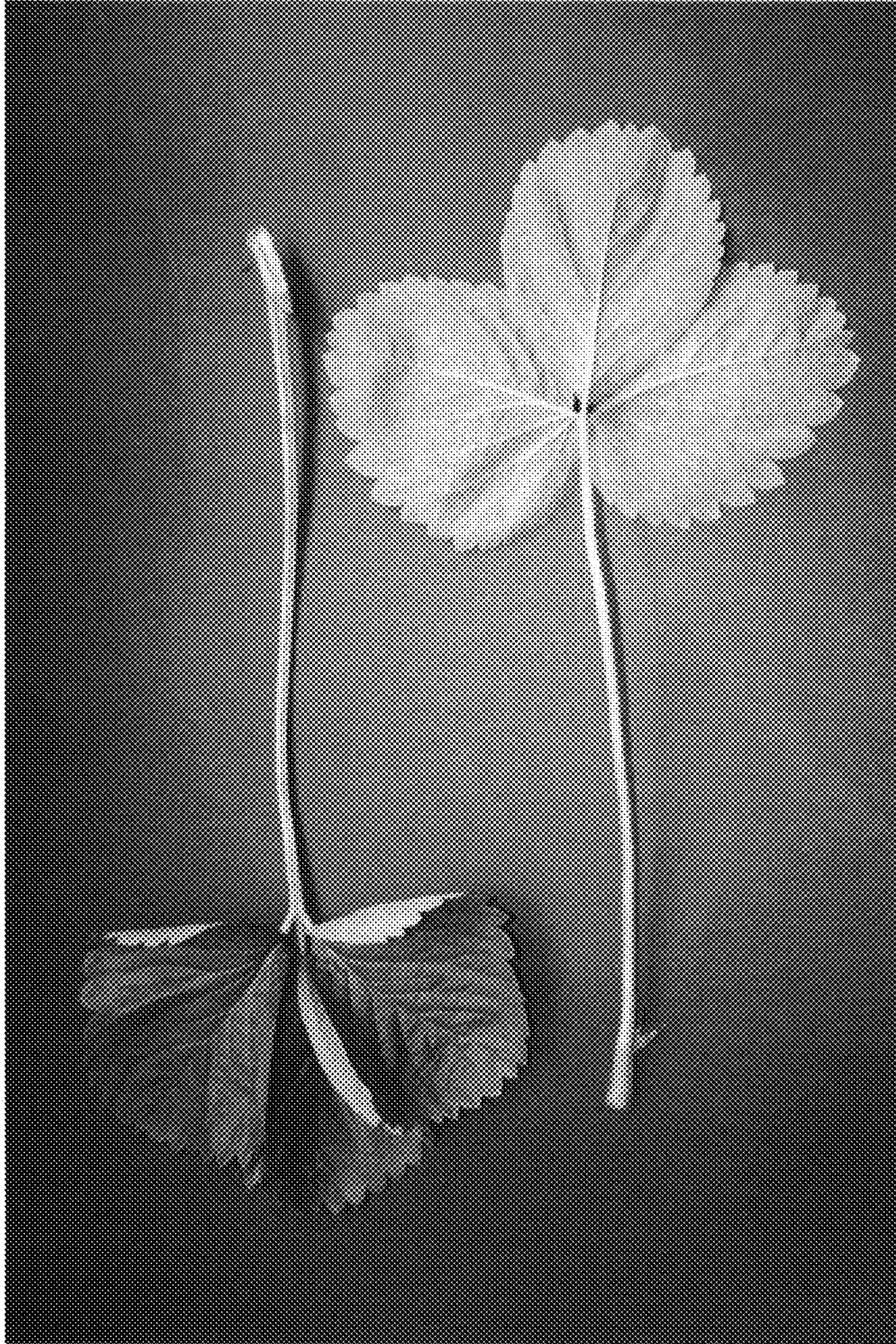


FIG. 3B

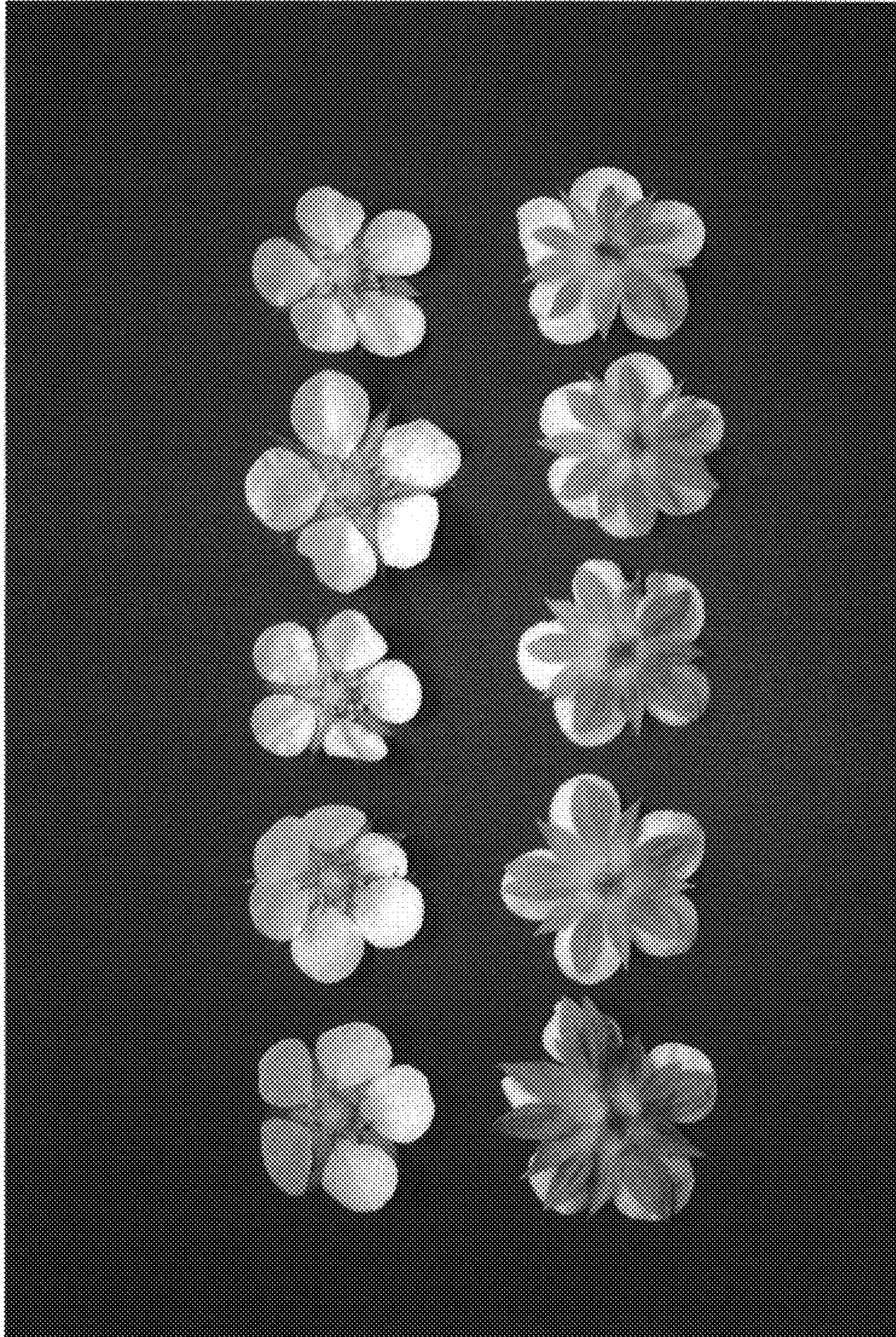


FIG. 4