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Stewart et al.

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- (54) **STRAWBERRY PLANT NAMED**
‘DRISSTRAWEIGHTY’
- (50) Latin Name: *Fragaria x ananassa*
Varietal Denomination: **DrisStrawEighty**
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- (52) **U.S. Cl.**
USPC **Plt./209**
- (58) **Field of Classification Search**
USPC Plt./208, 209
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.
PP5,840 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.
PP12,899 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.
PP20,363 P2 9/2009 Chandler
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

Ferguson et al., Unpublished U.S. Appl. No. 16/501,758, filed Jun. 4, 2019, titled “Strawberry Plant Variety Named DrisStrawSeventySix”.

(Continued)

Primary Examiner — Susan McCormick Ewoldt
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(57) **ABSTRACT**

A new and distinct variety of strawberry plant named ‘DrisStrawEighty’, particularly selected for the size, glossiness, firmness, yield, and shelf life of its fruit, as well as the health of the plant, is disclosed.

7 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.
 PP29,289 P3 5/2018 Vitten et al.
 PP29,728 P2 10/2018 Stewart et al.
 PP29,729 P2 10/2018 Kibbe et al.
 PP29,730 P2 10/2018 Kibbe et al.
 PP29,731 P2 10/2018 Ferguson et al.
 PP29,747 P2 10/2018 Vitten et al.
 PP29,748 P2 10/2018 Vitten et al.
 PP29,749 P2 10/2018 Stewart et al.
 PP30,775 P2 8/2019 Carrillo Mendoza et al.
 PP30,789 P2 8/2019 Ferguson et al.
 PP30,818 P2 8/2019 Pakozdi et al.
 PP30,851 P2 8/2019 Fear et al.
 PP30,936 P2 10/2019 Stewart et al.
 PP31,083 P2 11/2019 Carrillo Mendoza et al.
 PP31,233 P2 12/2019 Pakozdi et al.
 PP31,527 P3 3/2020 Carrillo Mendoza et al.
 2003/0079263 P1 4/2003 Gilford et al.
 2013/0276182 P1 10/2013 Fear et al.

OTHER PUBLICATIONS

Ferguson et al., Unpublished U.S. Appl. No. 16/501,428, filed Apr. 12, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSeventyfive'".
 Ferguson et al., Unpublished U.S. Appl. No. 16/501,759, filed Jun. 4, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSeventySeven'".
 Ferguson et al., Unpublished U.S. Appl. No. 16/602,701, filed Nov. 22, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSixtyNine'".
 Jacobs et al., Unpublished U.S. Appl. No. 16/501,501, filed Apr. 18, 2019, titled "Strawberry Plant Variety Named 'DrisStrawSeventy'".
 Mendoza et al., Unpublished U.S. Appl. No. 16/501,849, filed Jun. 18, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSeventyEight'".
 Mendoza et al., Unpublished U.S. Appl. No. 16/501,602, filed May 7, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSixtyEight'".
 Mendoza et al., Unpublished U.S. Appl. No. 16/602,476, filed Oct. 15, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSeventyNine'".
 Pakozdi et al., Unpublished U.S. Appl. No. 16/501,198, filed Mar. 5, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSeventyThree'".
 Pakozdi et al., Unpublished U.S. Appl. No. 16/501,182, filed Mar. 5, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSeventyFour'".
 Pakozdi et al., Unpublished U.S. Appl. No. 16/501,200, filed Mar. 5, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSeventyTwo'".
 Stewart et al., Unpublished U.S. Appl. No. 16/350,432, filed Nov. 14, 2018, titled "Strawberry Plant Variety Named 'Dris-StrawSixtySix'".
 Stewart et al., Unpublished U.S. Appl. No. 16/501,449, filed Apr. 17, 2019, titled "Strawberry Plant Variety Named 'Dris-StrawSeventyOne'".
 Stewart et al., Unpublished U.S. Appl. No. 16/873,277, filed Mar. 10, 2020, titled "Strawberry Plant Variety Named 'Dris-StrawEightyOne'".

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STRAWBERRY PLANT NAMED 'DRISSTRAWIGHTY'

Botanical classification: *Fragaria* x *ananassa*.

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

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 'DrisStrawEighty'.

Strawberry plant variety 'DrisStrawEighty' originated from a cross between the proprietary female parent '50T403' (unpatented) and the proprietary male parent '169U 96' (unpatented). Progeny plants from this cross of '50T403' x '169U 96', including 'DrisStrawEighty', were asexually propagated via stolons in Shasta County, Calif., USA in April of 2013. Strawberry plant variety 'DrisStrawEighty' was later specifically identified and selected in Monterey County, Calif., USA in June of 2014.

'DrisStrawEighty' was subsequently asexually propagated via stolons, and underwent further testing at test plots in Monterey County, Calif., USA for five years (2014 to 2019). The present variety has been found to be stable and reproduce true to type through successive asexual propagations via stolons and tissue culture.

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

1. Inflorescence on the same level as foliage;
2. Medium anthocyanin coloration of stolon;
3. Straight shape in cross section of terminal leaflet; and
4. Free arrangement of petals.

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'DrisStrawEighty' was particularly selected for the size, glossiness, firmness, yield, and shelf life of its fruit, as well as the health of the plant.

DESCRIPTION OF THE DRAWINGS

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

FIG. 1 illustrates whole fruit of variety 'DrisStrawEighty'.

FIG. 2 illustrates longitudinal sections of fruit of variety 'DrisStrawEighty'.

FIG. 3 illustrates the upper surfaces of flowers of variety 'DrisStrawEighty'.

FIG. 4 illustrates the lower surfaces of flowers of variety 'DrisStrawEighty'.

FIG. 5 illustrates leaves of variety 'DrisStrawEighty'.

FIG. 6 illustrates a side view of a plant of variety 'DrisStrawEighty'.

FIG. 7 illustrates an aerial view of a plant of variety 'DrisStrawEighty'.

DETAILED BOTANICAL DESCRIPTION

The following detailed descriptions set forth the distinctive characteristics of 'DrisStrawEighty'. The data which define these characteristics is based on observations taken in Monterey County, Calif., USA from 2014 to 2019. 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. 'DrisStrawEighty' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawEighty' was taken from plants that were eleven 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.) (2015 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.

Classification:

Species.—*Fragaria* x *ananassa*.

Common name.—Strawberry.

Denomination.—'DrisStrawEighty'.

Parentage:

Female parent.—Proprietary strawberry plant '50T403' (unpatented).

Male parent.—Proprietary strawberry plant '169U 96' (unpatented).

Plant:

Height.—30.6 cm.

Diameter.—47 cm.

Number of crowns per plant.—7.7.

Growth habit.—Semi-upright.

Stolon:

Average number of daughter plants per square foot.—25.

Length.—45.5 cm.

Diameter at bract.—4.1 mm.

Anthocyanin coloration.—Medium.

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Anthocyanin color.—RHS 59B (Deep purplish red).

Stolon color.—RHS 144B (Strong yellow-green).

Leaf:

Number of leaflets.—Three only.

Color of upper surface.—RHS NN137B (Greyish olive green).

Color of lower surface.—RHS 147C (Moderate yellow-green).

Variation.—Absent.

Terminal leaflet.—Length: 8.3 cm. Width: 6.9 cm. Length/width ratio: 0.83. Number of teeth/terminal leaflet: 20.6. Shape of base: Obtuse. Margin: Serrate to crenate. Shape in cross section: Straight.

Petiole.—Length: 24.6 cm. Diameter: 4.2 mm. Attitude of hairs: Slightly outwards. Bract frequency (number present on each petiole): 0.8. Color: RHS 144B (Strong yellow-green).

Petiolule.—Length: 19.6 mm. Diameter: 2.0 mm. Color: RHS 144C (Strong yellow-green).

Stipule.—Length: 2.8 cm. Width: 14.8 mm. Anthocyanin coloration: Weak. Anthocyanin color: RHS N57D (Deep purplish pink). Color: RHS 160C (Pale greenish yellow).

Inflorescence:

Position in relation to foliage.—Same level.

Pedicel.—Attitude of hairs: Horizontal. Length: 26.2 mm. Diameter: 2.1 mm. Color: RHS 144B (Strong yellow-green).

Flower.—Flower diameter (petal tip to petal tip on non-flattened flower): 23.1 mm. Arrangement of petals: Free. Stamen: Present. Typical and observed number of flowers per plant: 5.6.

Petal.—Length: 9.5 mm. Width: 8.9 mm. Length/width ratio: 1.07. Typical and observed petal number: 5.5. Color of upper side: RHS NN155B (Pinkish white). Color of lower side: RHS 155D (Yellowish white). Base shape: Concavo-convex. Apex shape: Rounded. Margin: Entire.

Calyx.—Diameter (sepal tip to sepal tip, measured on back of flower): 25.0 mm.

Sepal.—Length (sepal tip to point of attachment to receptacle): 8.4 mm. Width: 5.4 mm. Typical and observed sepal number: 11. Color of upper surface: RHS 136A (Dark green). Color of lower surface: RHS 147C (Moderate yellow-green).

Fruit:

Length.—33.8 mm.

Width.—30.2 mm.

Length/width ratio.—1.12.

Fruit hollow length.—17.73 mm.

Fruit hollow width.—6.35 mm.

Fruit hollow length/width ratio.—2.79.

Fruit weight.—27.4 grams.

Shape.—Conical.

Glossiness.—Medium.

Firmness.—Firm.

Color.—RHS 46A (Strong red).

Position of achenes.—Level with surface.

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Number of achenes per fruit.—153.

Position of calyx attachment.—Level with fruit.

Attitude of sepals.—Outwards.

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

Color of core.—RHS 42B (Strong reddish orange).

Production:

Flowering interval.—Mid-February to early November.

Harvest interval.—Mid-March to early November.

Type of bearing.—Partially remontant.

Productivity.—37,325 kg to 50,996 kg of fruit per acre per season from eleven-month-old plants when grown in Monterey County, Calif., USA

Resistance to abiotic stress, pests, and diseases:

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

Botrytis fruit rot (botrytis cinerea).—Moderately susceptible.

Powdery mildew (podosphaera macularis).—Moderately resistant.

COMPARISON WITH PARENTAL AND COMMERCIAL VARIETIES

‘DrisStrawEighty’ differs from the proprietary female parent ‘50T403’ (unpatented) in that fruit of ‘DrisStrawEighty’ are larger in size than fruit of ‘50T403’. In addition, ‘DrisStrawEighty’ has a denser growth habit and maintains fruit size better later in the season when compared with ‘50T403’.

‘DrisStrawEighty’ differs from the proprietary male parent ‘169U 96’ (unpatented) in that fruit of ‘DrisStrawEighty’ have a more uniform shape and firmer texture than fruit of ‘169U 96’. In addition, ‘DrisStrawEighty’ has better leaf health when compared with ‘169U 96’.

‘DrisStrawEighty’ differs from the commercial variety ‘DrisStrawSeventyOne’ (U.S. Plant Pat. No. 32,500) in that ‘DrisStrawEighty’ has inflorescence level with foliage, medium anthocyanin coloration of stolon, a straight shape in cross section of terminal leaflet, and a horizontal attitude of pedicel hairs, whereas ‘DrisStrawSeventyOne’ has inflorescence beneath foliage, absent or very weak anthocyanin coloration of stolon, a concave shape in cross section of terminal leaflets, and a slightly outwards attitude of pedicel hairs.

‘DrisStrawEighty’ differs from the commercial variety ‘DrisStrawFiftyThree’ (U.S. Plant Pat. No. 29,749) in that ‘DrisStrawEighty’ has medium anthocyanin coloration of stolon, a straight shape in cross section of terminal leaflets, an obtuse shape of base of terminal leaflet, and a free arrangement of petals, whereas ‘DrisStrawFiftyThree’ has strong anthocyanin coloration of stolon, a concave shape in cross section of terminal leaflet, a rounded shape of base of terminal leaflet, and an overlapping arrangement of petals.

We claim:

1. A new and distinct variety of strawberry plant named ‘DrisStrawEighty’ as shown and described herein.

* * * * *

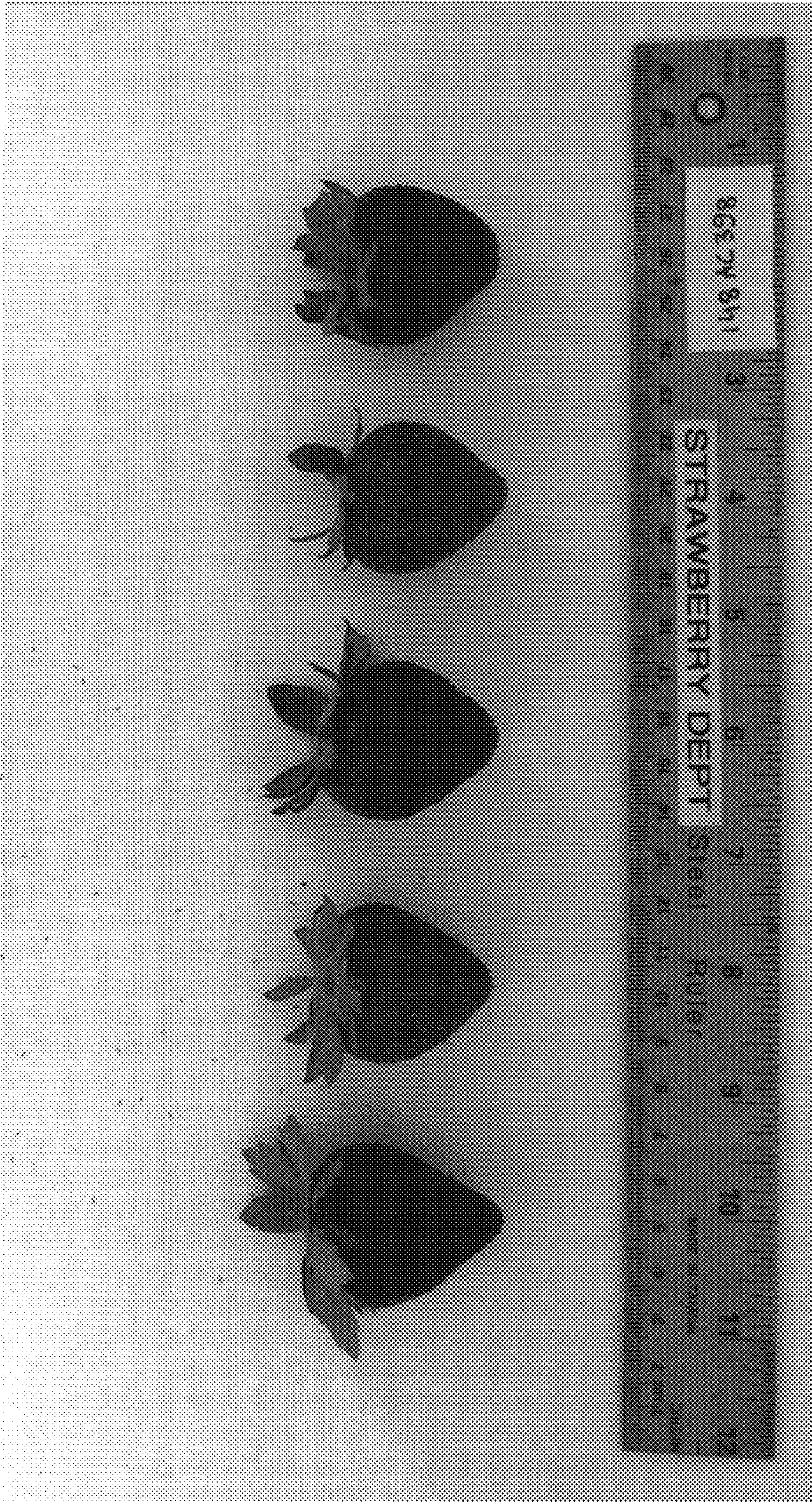


FIG. 1

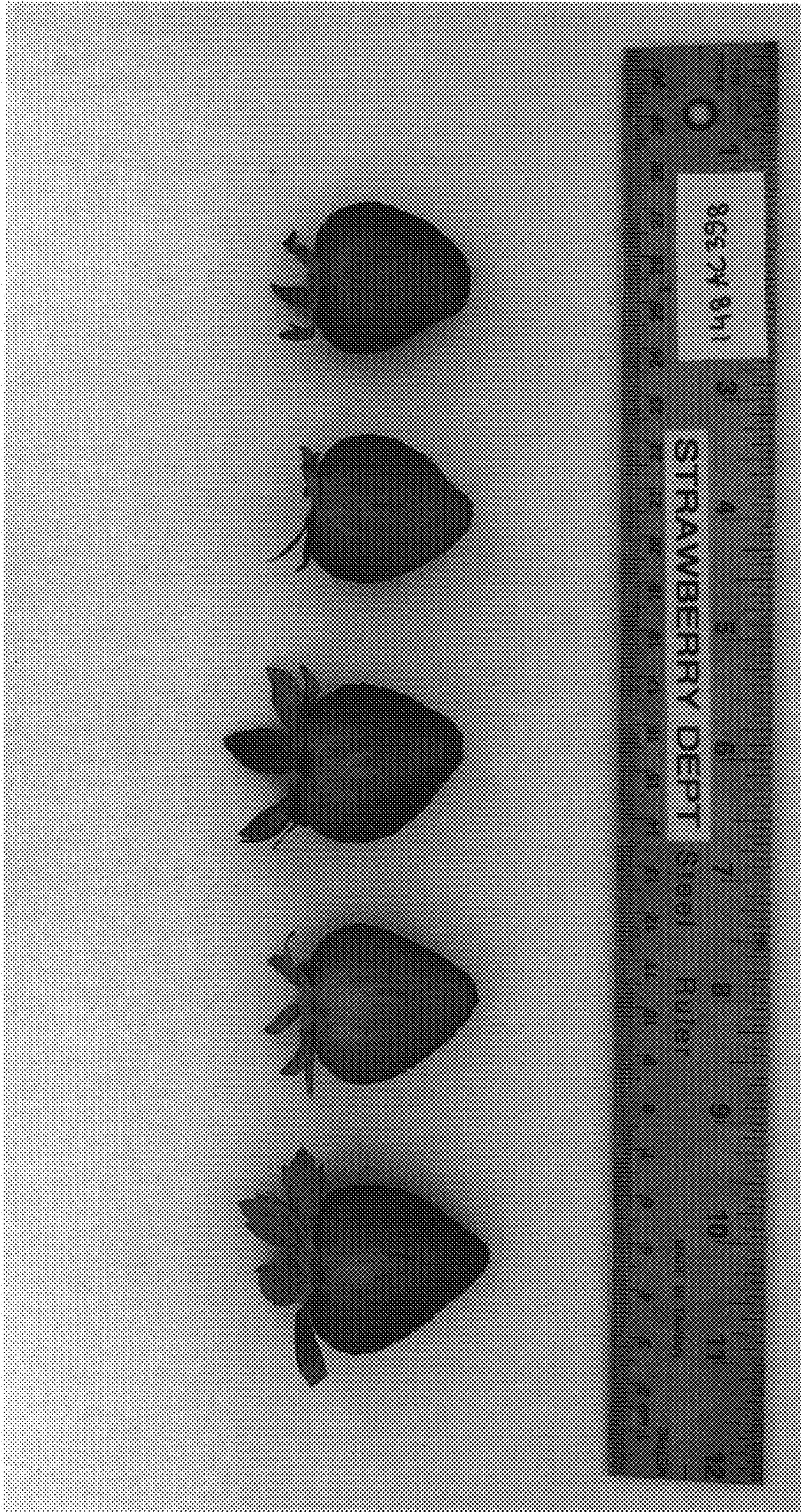


FIG. 2

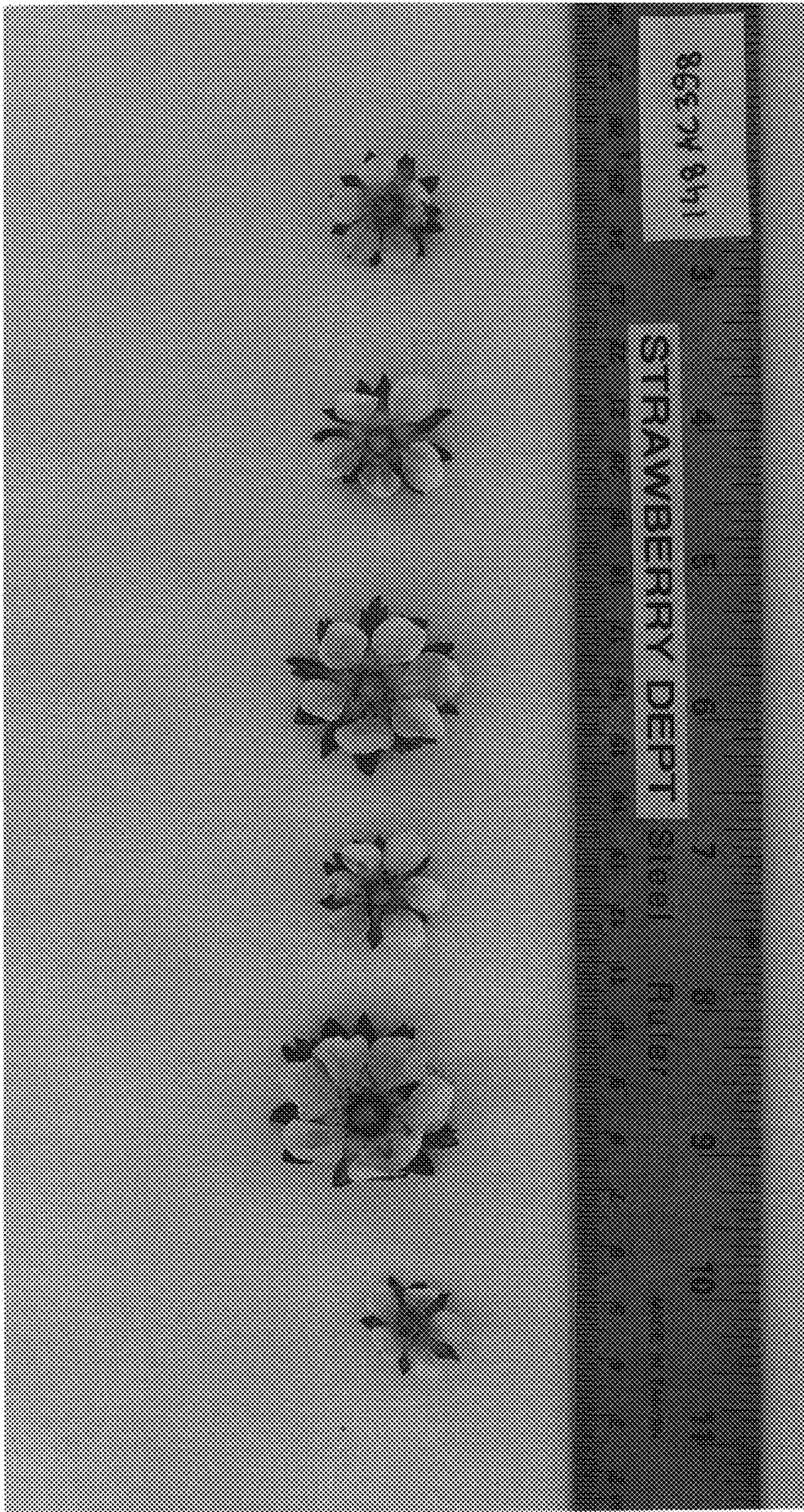


FIG. 3

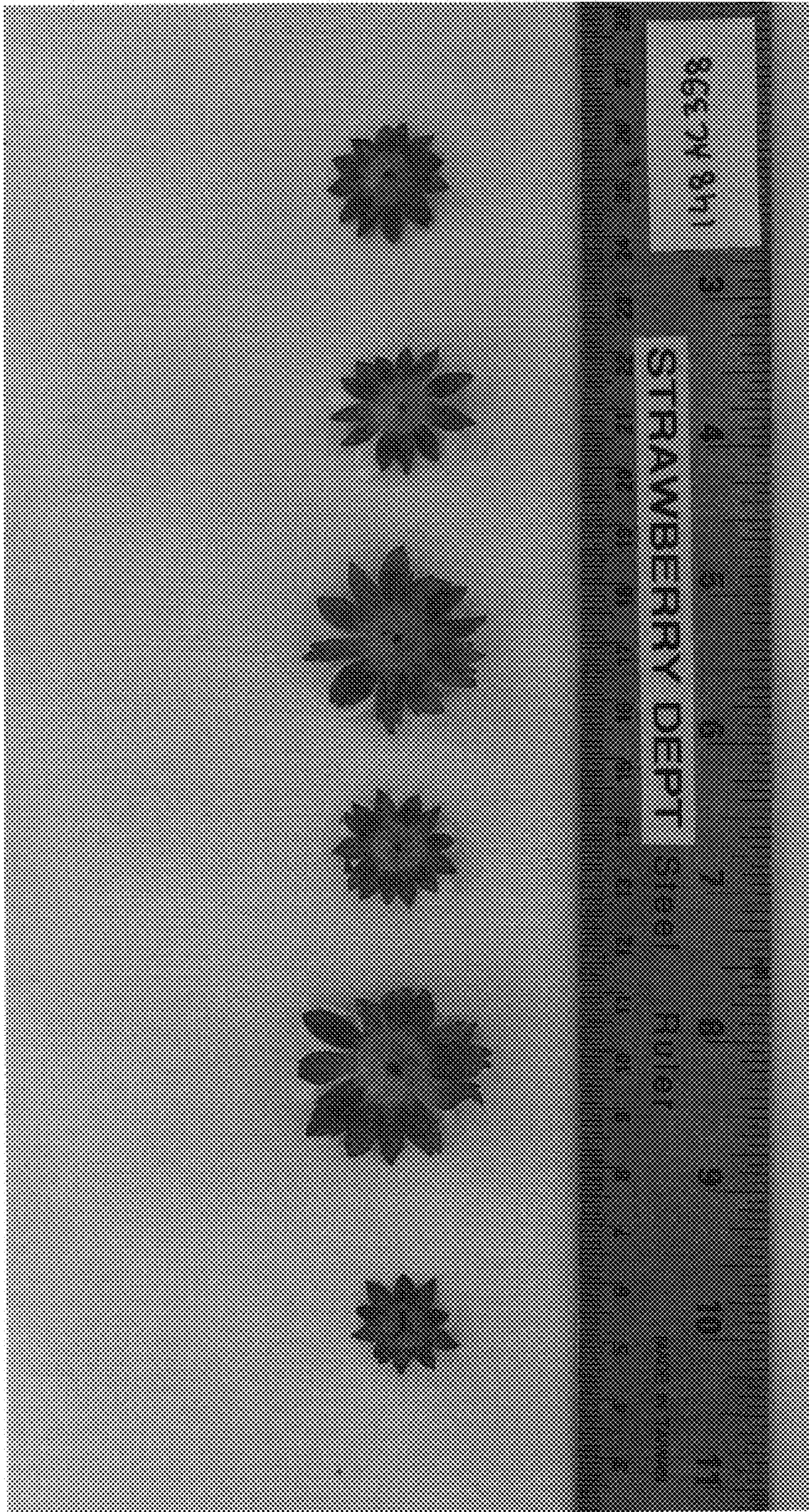


FIG. 4

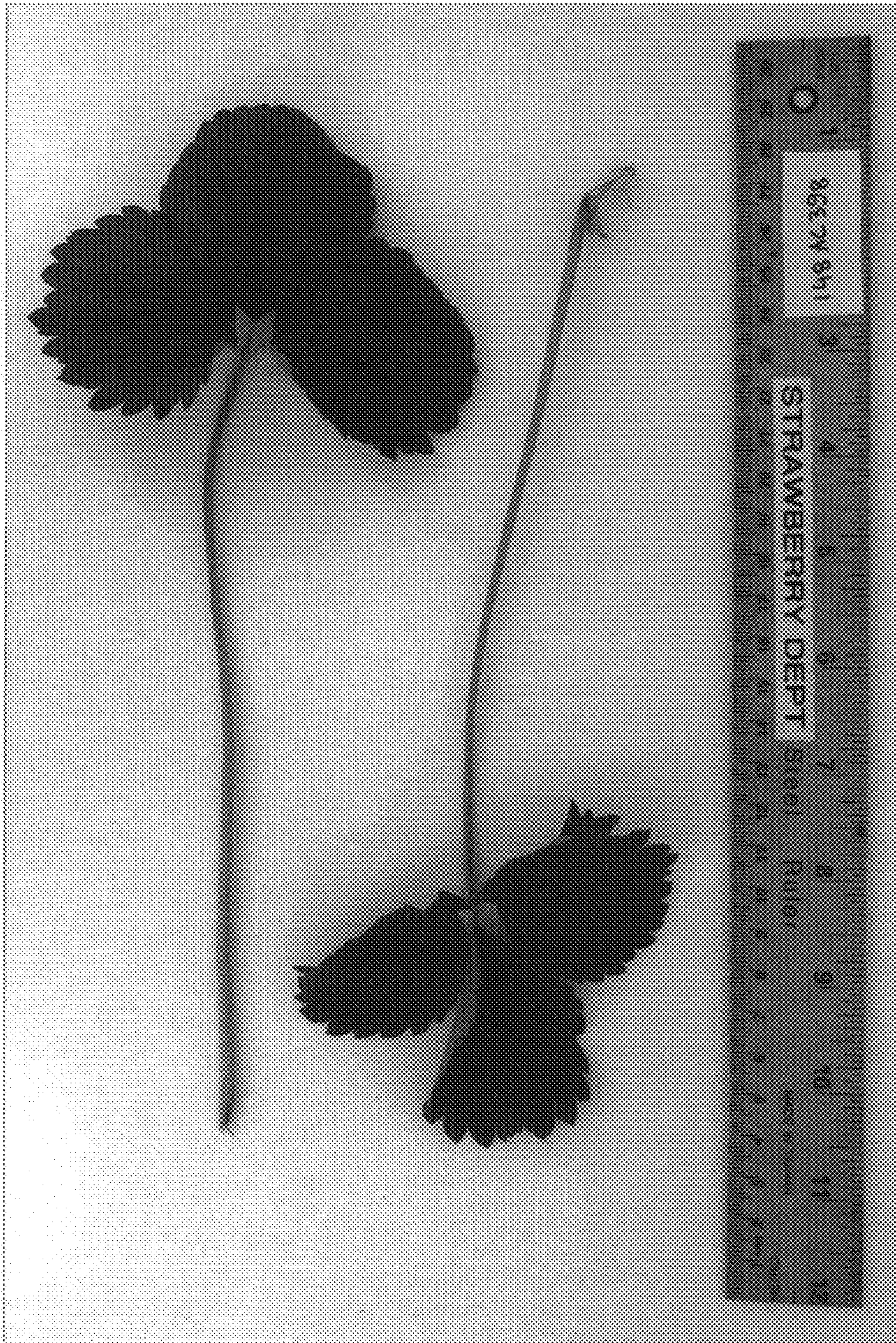


FIG. 5



FIG. 6



FIG. 7