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Amorao et al.

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(54) **STRAWBERRY PLANT NAMED 'DRISCOLL VENICE'**

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(57) **ABSTRACT**

This invention relates to a new and distinct variety of strawberry named 'Driscoll Venice'. The variety is similar to the varieties 'Coronado' and 'San Miguel'. The variety is distinguished from 'Coronado' and 'San Miguel', in particular, the plant is medium dense, shape of terminal leaflet is obtuse, petiole pubescence is dense, predominant fruit shape is cordate, insertion of achenes is level with surface, and fruit acidity is weak.

4 Drawing Sheets

Latin name of the genus and species of the plant claimed: The variety is botanically identified as *Fragraria×ananassa.*

BACKGROUND OF THE INVENTION

The new variety originated as a result of a controlled cross between the strawberry plants 'Ana Maria' (U.S. Plant Pat. No. 11,035) and 'Balboa' (U.S. Plant Pat. No. 9,130) in an ongoing breeding program, and was discovered as a seedling in a controlled breeding plot in Ventura County, Calif. in February, 1996. The original seedling of the new cultivar was asexually propagated by stolons in McArthur, Shasta County, Calif. propagules were transplanted to a controlled breeding plot in Ventura County, Calif. where the variety was identified and selected for further evaluation. 'Driscoll Venice' was subsequently asexually propagated and underwent further testing in Ventura County, Calif. for six years. This propagation and testing has demonstrated that the combination of traits disclosed herein which characterize the new variety are fixed and retained true to type through successive generations of asexual reproduction.

SUMMARY OF THE INVENTION

The present invention relates to a new and distinct variety of strawberry named 'Driscoll Venice'. The variety is botanically identified as *Fragaria×ananassa.* The new variety is distinguished from other varieties by a number of characteristics as set forth in Tables 1–4.

COMPARISON TO SIMILAR VARIETIES

The varieties which we believe to be similar to 'Driscoll Venice' from those known to us are 'Coronado' (U.S. Plant Pat. No. 10,221) and 'San Miguel' (U.S. Plant Pat. No. 10,642). There are several characteristics of the new variety that are different from, or not possessed by 'Coronado' and 'San Miguel'. The new variety is medium dense, shape of terminal leaflet is obtuse, petiole pubescence is dense,

predominant fruit shape is cordate, insertion of achenes is level with surface, and fruit acidity is weak.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying photographs show typical specimens of the new variety, including fruit, foliage and flowers, in color as nearly true as it is reasonably possible to make in color illustrations of these characteristics.

FIG. **1** shows the leaves of the plant.

FIG. **2** shows the upper side and the under side of the flowers.

FIG. **3** shows a close-up of the fruit.

FIG. **4** shows the fruit in longitudinal cross-section.

DESCRIPTION OF THE NEW VARIETY

The following detailed description of the new variety is based upon observations taken of plants and fruit grown in Ventura County, Calif., U.S.A. This description is in accordance with UPOV terminology. Observations of 'Driscoll Venice', 'Coronado' and 'San Miguel' were taken in side by side comparison in the year 2001. 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. Colors are described and the most similar color designations are provided from The Royal Horticultural Society (R.H.S.) Colour Chart.

PROPAGATION

The new variety is principally propagated by way of stolons. Although propagation by stolons is presently preferred, other known methods of propagating strawberry plants may be employed.

CHARACTERISTICS OF THE NEW VARIETY

Information on the new variety is presented in Tables 1, 2, 3 and 4. In the tables, the flowers described are secondary flowers except where indicated. The petal color of 'Driscoll Venice' is white (155C in The R.H.S. Colour Chart). The fruit described is the secondary fruit on one-year-old plants. Fruit and flower measurements are an average of both primary and secondary fruit and flowers. The average stolon diameter at bract subtending the daughter plant is 2.88 mm. The number of propagules/nursery plant in 2002 was 71. The anthocyanin coloration of the stipules in the Fall of the year in nursery is light pink 43D (in The R.H.S. Colour Chart). The petiolule length is 5.32 mm and the petiolule color is 149A (in The R.H.S. Colour Chart). The leaf texture is blistered, the leaf margin is crenate, the leaf vein color is 149A (in The R.H.S. Colour Chart), and the leaf venation is pinate. The petal shape is ovate to rounded, the petal margin is entire, the petal number is 6, and the petal color of the upper and lower surface is white 155C (in The R.H.S. Colour Chart). The sepal color is 147A (in The R.H.S. Colour Chart) on the upper surface and 147C (in The R.H.S. Colour Chart) on the lower surface, the average sepal number is 11.33, average sepal length is 15.64 mm, and average sepal width is 8.51 mm. The average weight of achenes is 0.00055 g and the average number of achenes/berry is 278.3. The anthocyanin color of stolon is purple red 59D (in The R.H.S. Colour Chart). The color of anthers is yellow 13A (in The R.H.S. Colour Chart) and the color of pistils and receptical is yellow 7A (in The R.H.S. Colour Chart).

Table 1 provides information on the plant and fruit characteristics of the new variety 'Driscoll Venice' compared with characteristics of 'Coronado' and 'San Miguel'. Table 2 provides additional information of the plant and fruit characteristics of the new variety 'Driscoll Venice' compared with characteristics of the varieties 'Coronado' and 'San Miguel'. Table 3 provides reactions of the new variety to stresses, pests and diseases compared with reactions of the varieties 'Coronado' and 'San Miguel'. Table 4 provides isozyme characteristics of the new variety as compared to that of the varieties 'Coronado' and 'San Miguel'.

TABLE 1

DETAILED COMPARISON OF 'DRISCOLL VENICE', 'CORONADO' AND 'SAN MIGUEL'

	'Driscoll Venice'	'Coronado'	'San Miguel'
Plant Characteristics			
Height of Plant (cm)	19.5	20.7	22.8
Spread of Plant (cm)	26.0	28.7	29.4
Number of Crowns	3.4	4.6	4.4
Leaf Characteristics			
Terminal Leaflet Length (cm)	5.6	6.1	6.2
Terminal Leaflet Width (cm)	6.2	6.3	5.8
Terminal Leaflet Length/Width	0.91	0.97	1.07
# Teeth/Terminal Leaflet	22.7	21.6	20.7
Color of upper side	dark green 147A	light to medium green 137A	medium to dark green 147A
Color of under side	light to medium green 139C	light to medium green 137B	light to medium green 138B

TABLE 1-continued

DETAILED COMPARISON OF 'DRISCOLL VENICE', 'CORONADO' AND 'SAN MIGUEL'

	'Driscoll Venice'	'Coronado'	'San Miguel'
Petiole Length (cm)	14.9	16.3	16.0
Petiole Color	149A	149A	149A
Bract Frequency	0%	0%	25% typically paired
Stipule Length (cm)	2.9	3.4	2.9
Stipule Width (cm)	1.0	1.2	1.1
Flower Characteristics			
Petal Length (cm)	1.7	1.6	1.4
Petal Width (cm)	1.6	1.7	1.5
Petal Length/Width Ratio	1.06	0.93	0.98
Flower Diameter (cm)	3.2	3.4	2.7
Calyx Diameter (cm)	4.4	4.4	4.1
Fruiting Truss			
Length (cm)	21.8	22.1	25.7
Fruit Characteristics			
Fruit Length (cm)	4.2	4.3	4.3
Fruit Width (cm)	4.1	3.9	4.1
Fruit Length/Width Ratio	1.04	1.11	1.07
Average Berry Weight (g)	27.0	23.6	23.2
External Color	45A	46A	53A
Internal Color	orange red and white (34A and 155C)	red 41A	dark red 45A
Average % brix	8.1	7.1	7.1
Brix/Acid Ratio	10.75	9.11	9.33
Achene Coloration	60A to 15B	53A to 151B	53A to 14B
Yield (g/plant)	695	598	557

TABLE 2

CHARACTERISTICS OF 'DRISCOLL VENICE', 'CORONADO' AND 'SAN MIGUEL'

	'Driscoll Venice'	'Coronado'	'San Miguel'
Plant			
Habit	globose	globose	flat globose
Density	dense	open	open
Vigor	medium	medium	medium
Leaf			
Shape in cross section	slightly concave	slightly concave	concave
Interveinal blistering	strong	strong	strong
Glossiness	strong	strong	strong
Number of leaflets	more than three on at least 5 out of 10 leaves	more than three on up to 5 out of 10 leaves	three only
Terminal leaflet margin profile	flat	flat to cupped	flat to revolute
Terminal leaflet shape of base	rounded	obtuse	rounded
Terminal leaflet shape of teeth	obtuse	rounded	rounded
Stipule pubescence	sparse to medium	sparse	sparse
Petiole pubescence	dense	medium	sparse to medium
Petiole pose of hairs	outward to downward	outward	outward

TABLE 2-continued

CHARACTERISTICS OF 'DRISCOLL VENICE', 'CORONADO' AND 'SAN MIGUEL'

	'Driscoll Venice'	'Coronado'	'San Miguel'
Stolon			
Amount	many	medium to many	many
Anthocyanin coloration	medium	weak to medium	weak to medium
Thickness	medium	medium	thin to medium
Pubescence	medium to dense	sparse to medium	sparse to medium
Inflorescence			
Position relative to foliage	level to above	level to above	above
Diameter of calyx relative to corolla on secondary flowers	larger	larger	larger
Diameter of inner calyx relative to outer on secondary flowers	smaller	same size to larger	same size
Spacing of petals	touching to overlapping	touching to overlapping	overlapping
Fruiting Truss			
Attitude at first picking	prostrate	semi-erect to prostrate	prostrate
Fruit			
Predominant shape	cordate	conical to wedged	conical to cylindrical
Difference in shapes between primary and secondary fruits	slight	moderate	moderate
Band without achenes	very narrow	narrow	very narrow
Unevenness of surface	weak	weak to medium	weak to medium
Evenness of color uneven	slightly uneven to even	even	even
Glossiness	medium to strong	medium to strong	medium
Insertion of achenes	level with the surface	below surface	below surface
Insertion of calyx	level to set above	level to set above	set above
Pose of the calyx segments	reflexed	spreading	spreading to reflexed
Size of calyx in relation to fruit on secondary fruit	same size to larger	larger	same size
Adherence of calyx	strong	medium	strong
Firmness of flesh	medium	firm	firm
Evenness of flesh color	uneven	slightly uneven	even
Distribution of flesh color	only marginal	marginal and central	marginal and central
Hollow center size	small to medium	medium	medium
Sweetness	strong	weak	strong
Texture when tasted	fine	fine	fine
Acidity	weak	strong	medium
Time of Flowering	early-January	early-January	early-January
Harvest Interval in 2001	early-February to mid-June	early-February to mid-June	early-February to mid-June
Type of Bearing	partially everbearing	partially everbearing	partially everbearing

REACTION TO STRESS, PESTS AND DISEASE FOR 'DRISCOLL VENICE', 'CORONADO' AND 'SAN MIGUEL'

TABLE 3

	'Driscoll Venice'	'Coronado'	'San Miguel'
Reaction to Stress			
high pH	moderately resistant	moderately resistant	moderately resistant
high soil salt levels	moderately resistant	moderately resistant	moderately resistant
Reaction to Pests			
Tetranychus urticae	moderately resistant	moderately resistant	moderately resistant
Lygus hesperus	susceptible	susceptible	susceptible
Reaction To Diseases			
Botrytis fruit rot	moderately susceptible	moderately susceptible	moderately susceptible
Powdery mildew	moderately resistant	moderately resistant	moderately resistant
Verticillium wilt	susceptible	susceptible	susceptible
Strawberry Mottle Virus	moderately resistant	moderately resistant	moderately resistant
Xanthomonas fragariae	moderately susceptible	moderately susceptible	moderately susceptible

ISOZYME ANALYSIS

In Addition to the Morphological Description Above, the New Cultivar 'Driscoll Venice' has been analyzed to obtain an indication of its genetic makeup to provide further means for identifying the new variety and distinguishing it from other somewhat similar and/or related strawberry varieties. Specifically, leaf samples of 'Driscoll Venice', 'Coronado', and 'San Miguel' were analyzed by electrophoresis for isozyme patterns of the enzymes phosphoglucoisomerase ("PGI"), leucine aminopeptidase ("LAP") and phosphoglucomutase ("PGM"). See *J. Amer. Soc. Hort. Sci.* 106:684–687. Isozyme characterization of the three varieties is presented in Table 4, with the letters representing the banding patterns for each enzyme as designated in the above-identified article.

TABLE 4

ISOZYME ANALYSIS FOR 'DRISCOLL VENICE', 'CORONADO' AND 'SAN MIGUEL'

Locus	'Driscoll Venice'	'Coronado'	'San Miguel'
PGI	A4	A2	A4
LAP	B3	B3	B3
PGM	C2	C4	C2

What is claimed is:

1. A new and distinct variety of strawberry plant, substantially as shown and described.

* * * * *

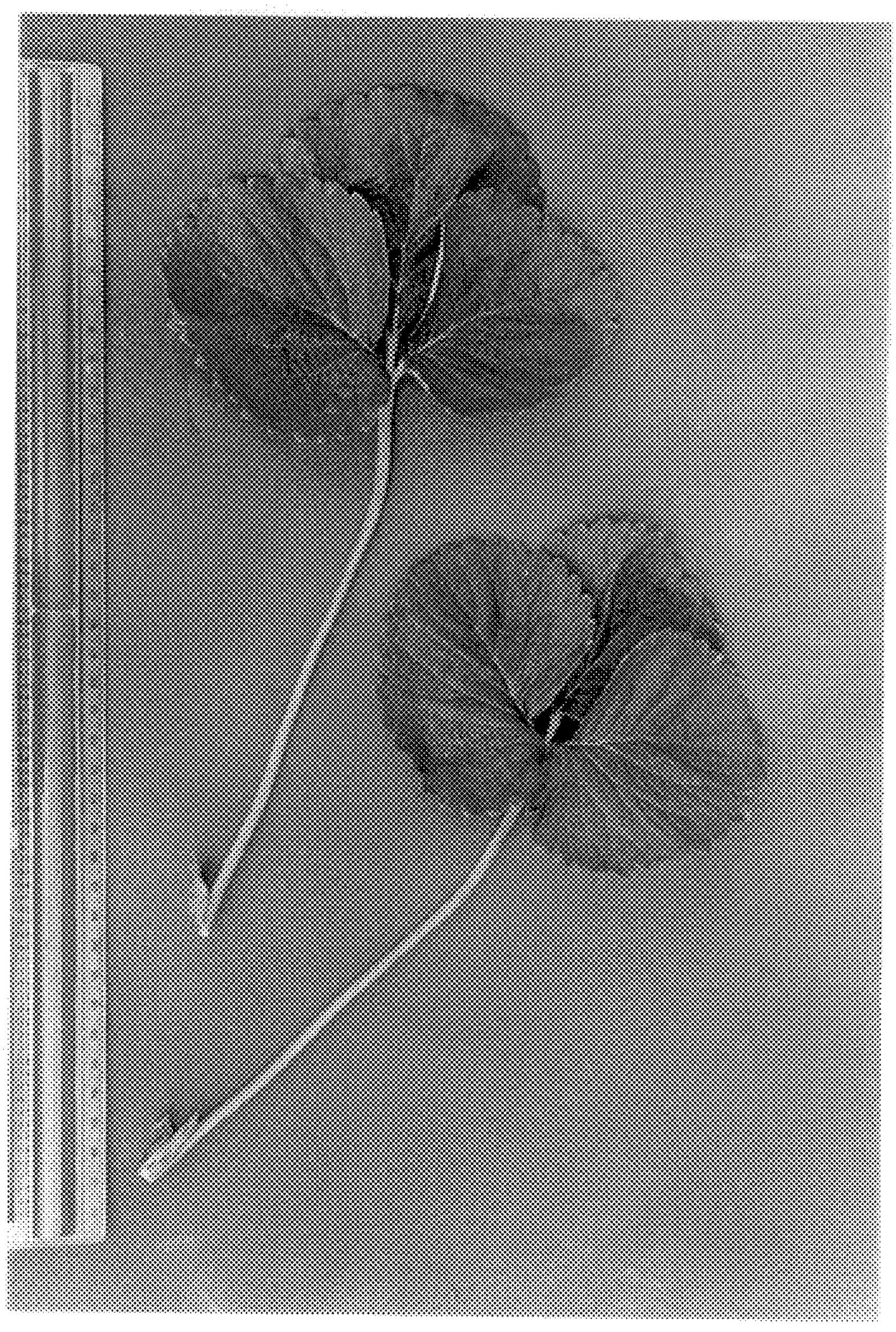

FIG. 1

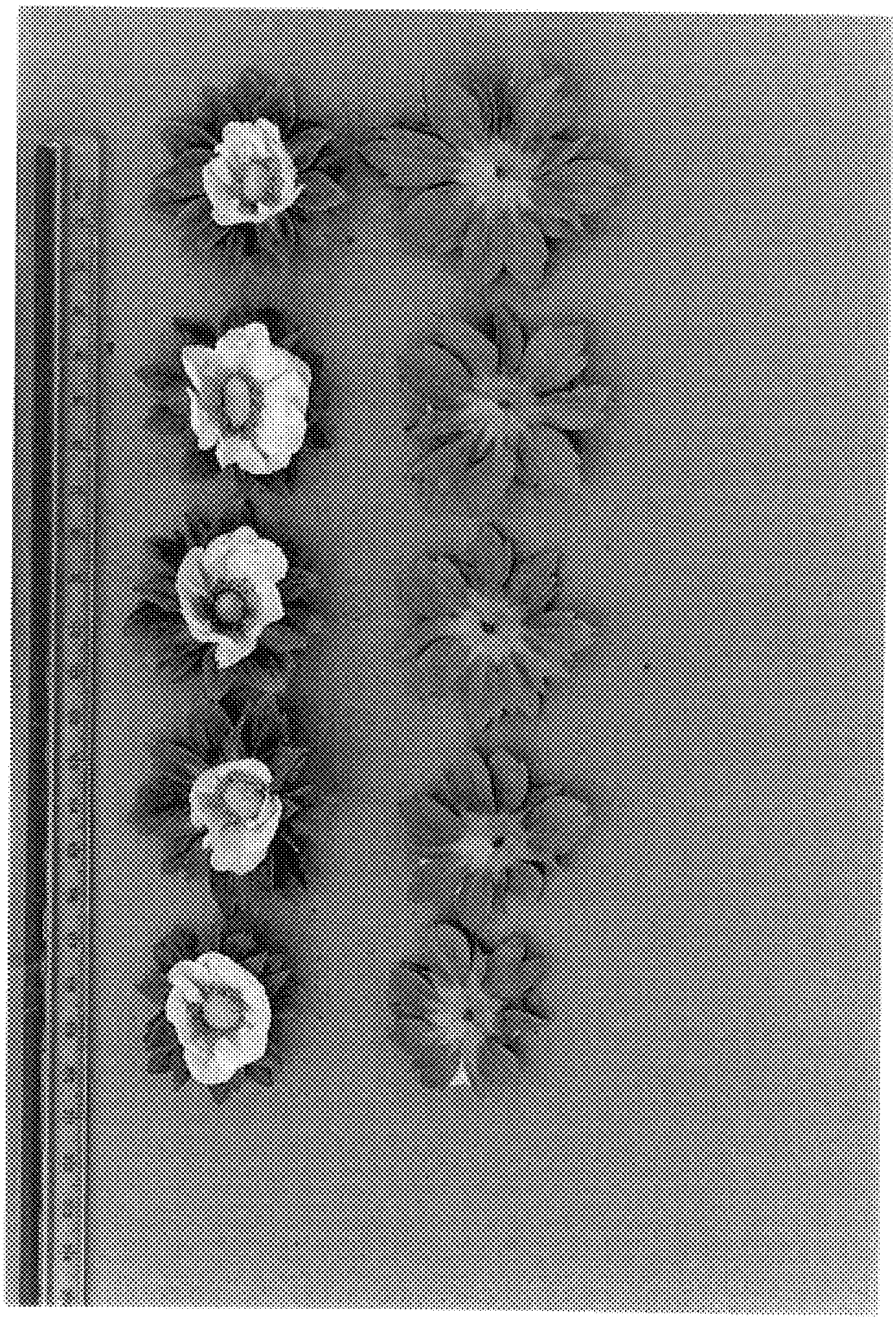

FIG. 2

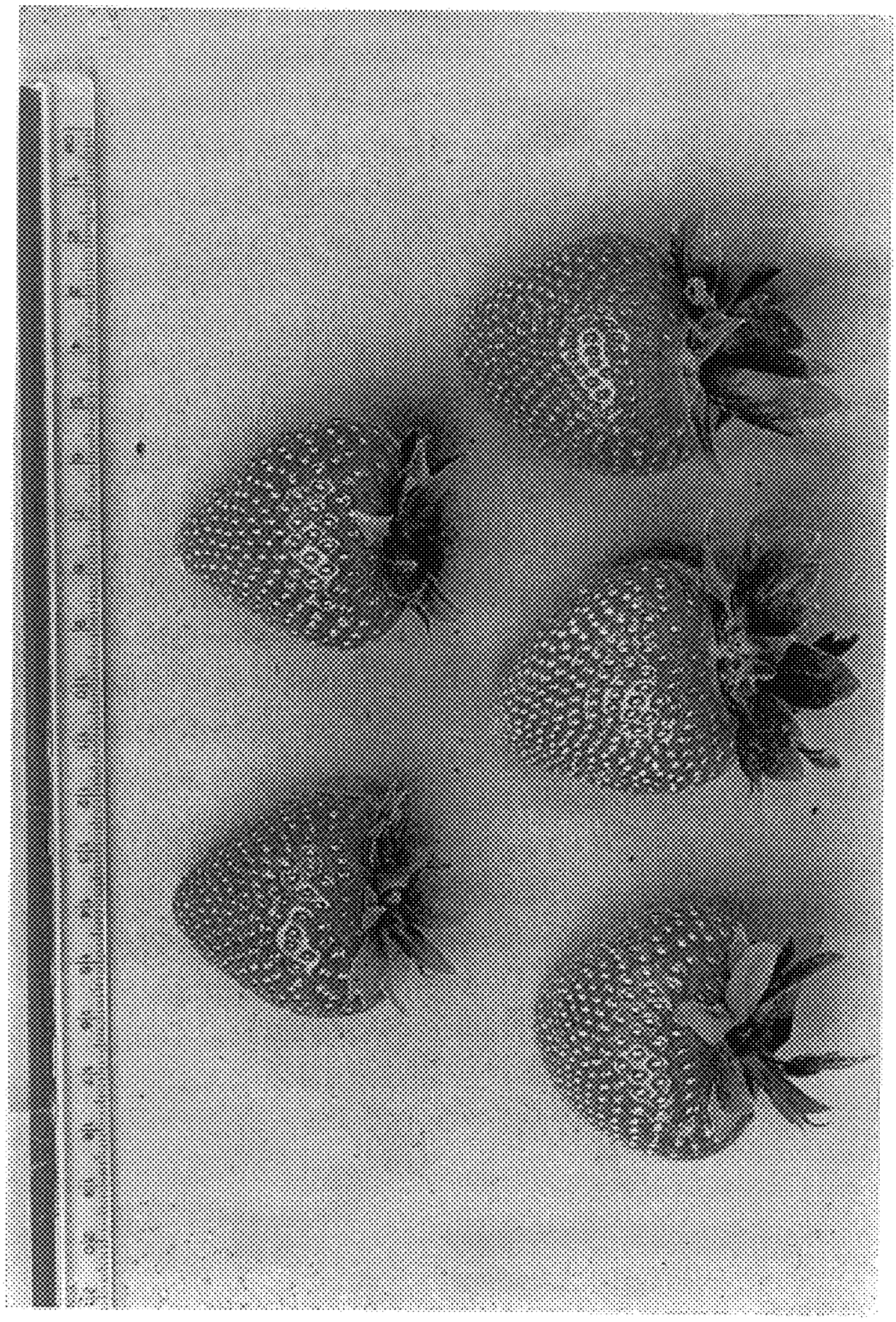

FIG. 3

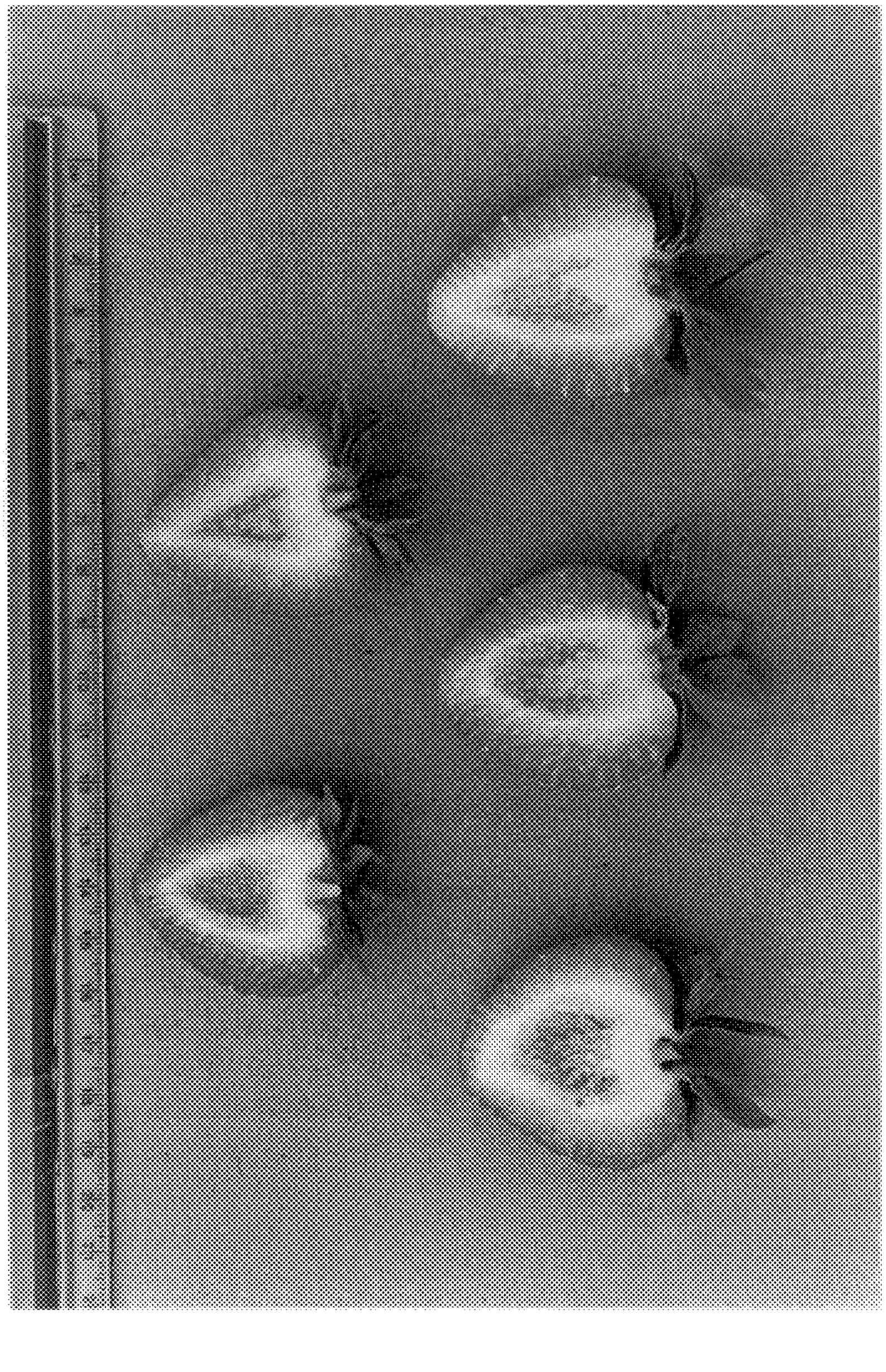

FIG. 4