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(54) **STRAWBERRY PLANT NAMED 'VENTURA'**

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(52) **U.S. Cl.** **Plt./209**
(58) **Field of Search** Plt./208, 209

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP6,231 P * 7/1988 Johnson et al. Plt./209

* cited by examiner

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(57) **ABSTRACT**

This invention relates to a new and distinct variety of strawberry named 'Ventura'. The variety is similar to the varieties 'E26', 'Montalvo', and 'Baeza'. The variety is distinguished from 'E26', 'Montalvo', and 'Baeza', in particular, by its globose to flat globose habit, medium density, weak to medium vigor, medium leaf glossiness, calyx diameter that is smaller relative to the corolla, semi-erect attitude at first picking, conical to cordate fruit shape, slight differences in shape between the primary and secondary fruit, narrow band without achenes, insertion of the calyx that is in a basin to level, weak to medium adherence of the calyx, and fruit with firm flesh and a small hollow center.

7 Drawing Sheets

1. BACKGROUND OF THE INVENTION

The new variety originated as a result of a controlled cross between the strawberry plants 'Mr. P' (U.S. Plant Pat. No. 5,840) and 'R1' (unpatented Driscoll variety) in an ongoing breeding program, and was discovered as a seedling in a controlled breeding plot at the Driscoll Research Ranch, Ventura County, Calif. in October 1992. The original seedling of the new cultivar was asexually propagated by stolons at the Driscoll Nursery, McArthur, Shasta County, Calif. Propagules were transplanted to a controlled breeding plot in Monterey County, Calif., where it was identified and selected for further evaluation. 'Ventura' was subsequently asexually propagated and underwent further testing at various locations in Ventura County, Calif. for seven 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.

2. SUMMARY OF THE INVENTION

The present invention relates to a new and distinct variety of strawberry named 'Ventura'. 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 1–6.

3. COMPARISON TO SIMILAR VARIETIES

The varieties which we believe to be similar to 'Ventura' from those known to us are 'E26' (unpatented Driscoll variety), 'Montalvo' (U.S. Plant Pat. No. 11,522) and 'Baeza' (U.S. Plant Pat. No. 11,548). There are several characteristics of the new variety that are different from, or not possessed by 'E26', 'Montalvo', and 'Baeza'. The new variety has a globose to flat globose habit, medium density,

weak to medium vigor, medium leaf glossiness, a calyx diameter that is smaller relative to the corolla, a semi-erect attitude at first picking, conical to cordate fruit shape, slight differences in shape between the primary and secondary fruit, a narrow band without achenes, insertion of the calyx that is in a basin to level, weak to medium adherence of the calyx, and fruit with firm flesh and a small hollow center.

Plants of 'Mr. P' were more vigorous than those of 'Ventura'. Fruit of 'Mr. P' had poorer shelf-life than those of 'Ventura' by being more orange in color and possessing raised achenes. Plants of R1 were partially everbearing while those of 'Ventura' are everbearing.

4. 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 a close-up photo of the whole plant.

FIG. **2** shows the whole plant.

FIG. **3** shows the leaves of the plant.

FIG. **4** shows the leaves of the plant.

FIG. **5** shows the upper side and under side of the flowers.

FIG. **6** shows a close-up of the strawberry.

FIG. **7** shows the strawberry in longitudinal cross-section.

5. 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. Observations of 'Ventura', 'E26', 'Montalvo', and 'Baeza' were taken in side by side comparison in 1999. 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. Color are described and the most similar color designations are provided from The Royal Horticultural Society (R.H.S.) Colour Chart.

5.1 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.

5.2 CHARACTERISTICS OF THE NEW VARIETY

Information on the new variety is presented in Tables 1, 2 and 3. In the tables, the flowers described are secondary flowers except where indicated. The petal color of 'Ventura' 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.

Table 1 provides information on the plant and fruit characteristics of the new variety 'Ventura' compared with characteristics of 'E26', 'Montalvo', and 'Baeza'. Table 2 provides additional information of the plant and fruit characteristics of the new variety 'Ventura' compared with characteristics of the varieties 'E26', 'Montalvo', and 'Baeza'. Table 3 provides reactions of the new variety to stresses as compared to the varieties 'E26', 'Montalvo', and 'Baeza'. Tables 4 and 5 provide information of the new variety's reaction to pests and diseases, respectively, compared to the varieties 'E26', 'Montalvo', and 'Baeza'. Table 6 provides isozyme characteristics of the new variety as compared to the varieties 'E26', 'Montalvo', and 'Baeza'.

The leaf margin is crenate. Leaf texture is slightly blistered. The shape of the leaf is rounded to broadly ovate. The mid-vein color on the terminal leaflet is yellow green (154C) and the venation pattern is pinate.

The average petiole diameter is 0.37 cm. The average length of the petiole on the terminal leaflet is 1.32 cm.

The petal shape is rounded to broadly ovate. The petal margin is entire. The petal texture is smooth. The shape of the petal apex and base are rounded. The average number of petals per flower is 5.6.

The color of the stipule is yellow-green (145A).

The average sepal length is 1.1 cm. The average sepal width is 0.46 cm. The sepal color is 138A.

The average number of achenes per berry is 286.

TABLE 1

DETAILED COMPARISON OF 'VENTURA', 'E26', 'MONTALVO' AND 'BAEZA'

	Ventura	E26	Montalvo	Baeza
Plant Characteristics				
Height of Plant (cm)	24.8	20.0	25.6	26.4
Spread of Plant (cm)	38.9	37.5	40.4	42.6
Number of Crowns	3.3	2.9	3.0	3.6
Leaf Characteristics				
Terminal Leaflet Width (cm)	8.7	8.0	9.6	9.6

TABLE 1-continued

DETAILED COMPARISON OF 'VENTURA', 'E26', 'MONTALVO' AND 'BAEZA'

	Ventura	E26	Montalvo	Baeza
Terminal Leaflet Length (cm)	8.3	8.0	9.5	9.5
Terminal Leaflet Length/Width Ratio	0.96	1.00	0.98	0.99
Number of Teeth/ Terminal Leaflet	24.6	21.2	20.6	32.2
Color of upper side of leaf	Medium green 137B	Medium green 137A	Light to medium green 147A	Light to medium green 147A
Color of under side of leaf	Light green 138B	Light green 138C	Light green 138C	Light green 138B
Petiole Lenght (cm)	17.1	14.1	15.4	16.5
Petiole color	yellow green 145B	yellow green 145A	yellow green 144C	yellow green 144A
Bract Frequency	20%	40% Typically paired	20% Typically paired	70% Typically paired
Stipule Length (cm)	2.9	3.1	3.5	3.6
Stipule Width (cm)	1.1	1.3	1.2	1.3
Flower Characteristics				
Petal Width (cm)	1.05	1.08	1.23	1.28
Petal Length (cm)	1.08	1.03	1.19	1.26
Petal Length/Width Ratio	1.03	0.95	0.97	0.98
Flower Diameter (cm)	2.76	2.70	3.08	3.15
Calyx Diameter (cm)	2.49	2.63	2.82	3.00
Fruit Characteristics				
Fruit Width (cm)	3.9	3.8	4.0	3.6
Fruit Length (cm)	4.0	4.0	4.6	3.9
Fruit Length/Width Ratio	1.01	1.06	1.16	1.08
Average Berry Size (g)	26.3	23.2	27.6	21.8
Fruit Skin Color	Red 46A	Orange red 46B	Orange Red 45B	Red 46A
Fruit Flesh Color	White & orange red 44A & 155D	White and pale rose 33B & 155D	White and orange red 43A & 155A	White & orange red 42B & 155D
Achene Coloration	Yellow to Red 13B to 45B	Yellow to Red 14A to 46A	Yellow to Red 13A to 26A	Yellow to Red 13A to 46A
Total Yield (g/plant)	433	503	357	445

TABLE 2

CHARACTERISTICS OF 'VENTURE', 'E26', 'MONTALVO', AND 'BAEZA'

	Ventura	E26	Montalvo	Baeza
Plant				
Habit	globose to flat globose	flat	flat globose	flat globose
Density	medium	medium to dense	open to medium	open
Vigor	weak to medium	weak	strong	medium
Leaf				
Shape in cross section	slightly concave	concave to slightly concave	concave	concave
Intervenial	strong	strong to	weak to	strong to

TABLE 2-continued

CHARACTERISTICS OF 'VENTURE', 'E26', 'MONTALVO', AND 'BAEZA'

	Ventura	E26	Montalvo	Baeza
blistering		very strong	medium	very strong
Glossiness	medium	weak	weak	weak
Number of leaflets	3 only	3 only	3 only	3 only
Terminal leaflet margin profile	revolute to flat	revolute to flat	flat	revolute to flat
Terminal leaflet shape of base	rounded	rounded	obtuse to rounded	obtuse to rounded
Terminal leaflet shape of teeth	obtuse	rounded	rounded	acute to obtuse
Stipule pubescence	sparse	sparse	sparse	sparse
Petiole pubescence	sparse	sparse	sparse	very sparse to sparse
Petiole pose of hairs	outwards	outwards	upwards to outwards	outwards
Stolon				
Number	few to medium	medium to many	—	—
Anthocyanin coloration	medium	medium to strong	—	—
Thickness	medium to thick	medium to thick	—	—
Pubescence	dense	dense	—	—
Inflorescence				
Position relative to foliage	level to above	beneath	beneath to level	level to above
Diameter of calyx relative to corolla	smaller	same size to larger	smaller to same size	same size to larger
Diameter of inner calyx relative to outer	same size	same size	larger	same size
Spacing of petals	touching to overlapping	overlapping	overlapping	overlapping
Fruiting Truss				
Attitude at first picking	semi-erect	prostrate	prostrate	prostrate
Length (cm)	29.8	22.1	26.4	26.9
Fruit				
Predominant shape	conical to cordate	conical	conical to almost cylindrical	conical
Difference in shapes between primary and secondary fruits	slight	very slight to slight	marked	very slight to slight
Band without achenes	narrow	narrow to medium	medium	very narrow to narrow
Unevenness of surface	weak to medium	weak	weak to medium on secondary fruit; strong on primary fruit	weak to medium
Evenness of color	uneven	slightly uneven	slightly uneven	slightly uneven to even
Glossiness	strong	strong	medium to	strong

TABLE 2-continued

CHARACTERISTICS OF 'VENTURE', 'E26', 'MONTALVO', AND 'BAEZA'

	Ventura	E26	Montalvo	Baeza
Insertion of achenes	below surface	level with surface	strong below surface	level to below surface
Insertion of calyx	in a basin to level	set above the fruit	set above the fruit	level
Pose of the calyx segments	reflexed	reflexed	reflexed	spreading to reflexed
Size of calyx in relation to fruit	smaller	smaller	smaller to same size	same size to larger
Adherence of calyx	weak to medium	strong	strong	strong
Firmness of flesh	firm	soft to medium	medium	medium to firm
Evenness of flesh color	slightly uneven	uneven	slightly uneven	uneven
Distribution of flesh color	marginal and central	only marginal	marginal and central	marginal and central
Hollow center size	small	medium	small to medium	large
Sweetness	medium to strong	medium	medium to strong	medium
Texture when tasted	fine	medium	fine	medium
Acidity	weak to medium	weak to medium	weak to medium	medium
Time of Flowering	mid to late August	mid to late August	mid to late August	mid to late August
Harvest Interval	Oct. 2–Dec. 18	Oct. 2–Dec. 18	Oct. 2–Dec. 18	Oct. 2–Dec. 18
Type of Bearing	fully everbearing	fully everbearing	fully everbearing	fully everbearing

5.3 REACTION TO STRESS TABLE 3

TABLE 3

Reaction to Stress	Ventura	E26	Montalvo	Baeza
high pH	Moderately Resistant	Moderately Resistant	Moderately Resistant	Moderately Resistant
high soil salt levels	Moderately Resistant	Moderately Resistant	Moderately Resistant	Moderately Resistant

5.4 PEST AND DISEASE RESISTANCE AND SUSCEPTIBILITY

TABLE 4

Reaction to Pests	Venutra	E26	Montalvo	Baeza
Tetranychus urticae	moderately susceptible	moderately susceptible	moderately susceptible	moderately susceptible
Aphis spp.	susceptible	susceptible	susceptible	susceptible
Lygus hesperus	susceptible	susceptible	susceptible	susceptible

TABLE 5

Reaction to Diseases	Ventura	E26	Montalvo	Baeza
Botrytis fruit rot	moderately susceptible	susceptible	susceptible	susceptible
Powdery mildew	highly susceptible	highly susceptible	highly susceptible	highly susceptible
Verticillium wilt	susceptible	susceptible	susceptible	susceptible
Strawberry Mottle Virus	moderately resistant	moderately resistant	moderately resistant	moderately resistant
Xanthomonas fragariae	moderately resistant	moderately resistant	moderately resistant	moderately resistant

5.5 ISOZYME ANALYSIS

In addition to the morphological description above, the new cultivar 'Ventura' has been analyzed to obtain an indication of its genetic makeup to provide further means for identifying the new variety and distinguishing it from some other somewhat similar and/or related strawberry varieties. Specifically, leaf samples of 'Ventura', 'E26', 'Montalvo' and 'Baeza' 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 chaaracterization 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 6

ISOZYME ANALYSIS FOR 'VENTURA' 'E26', 'MONTALVO', AND 'BAEZA'

Locus	Ventura	E26	Montalvo	Baeza
PGI	A2	A2	A4	A1
LAP	B3	B3	B3	B3
PGM	C4	C2	C4	C3

What is claimed is:

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

* * * * *

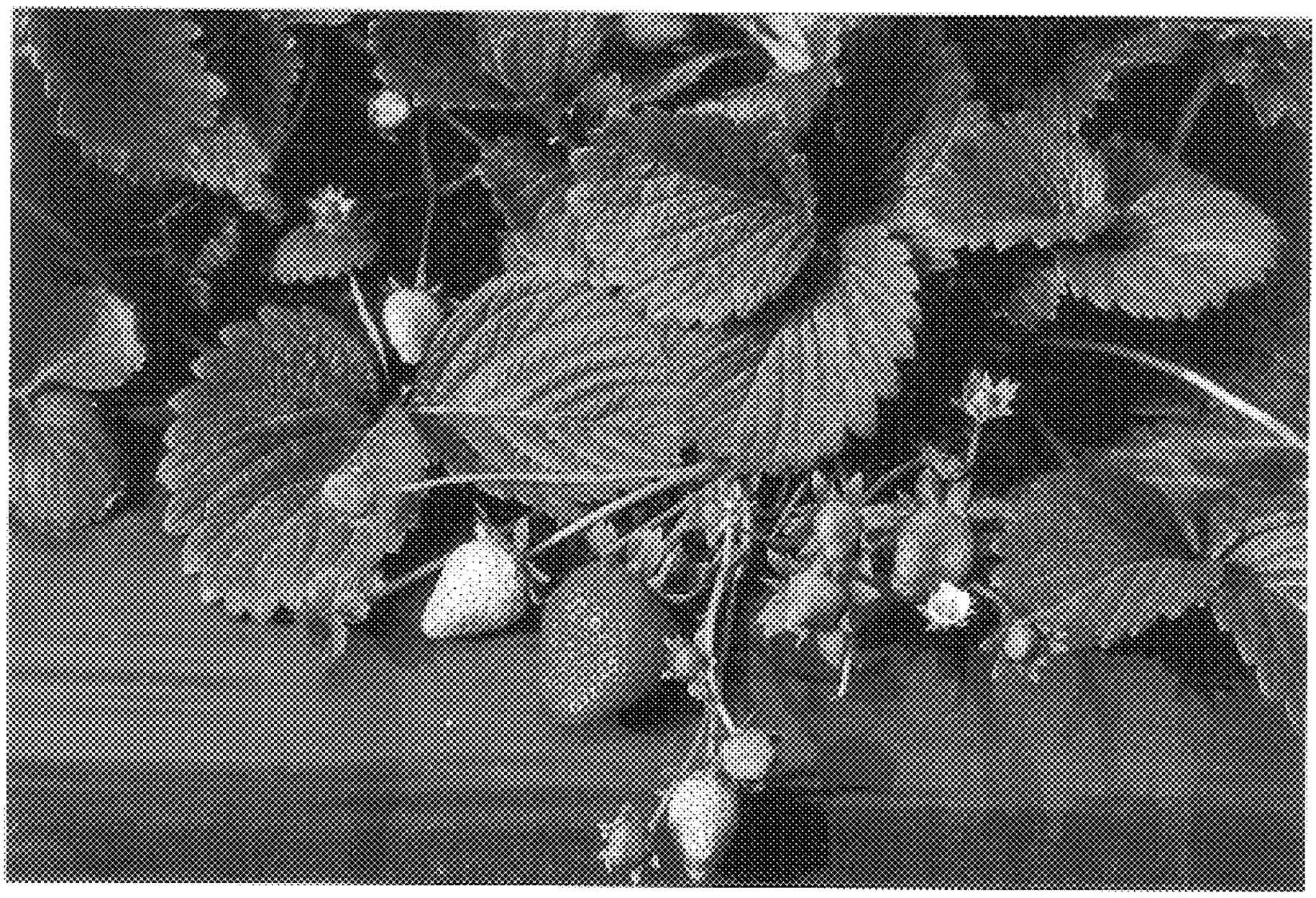

FIG. 1

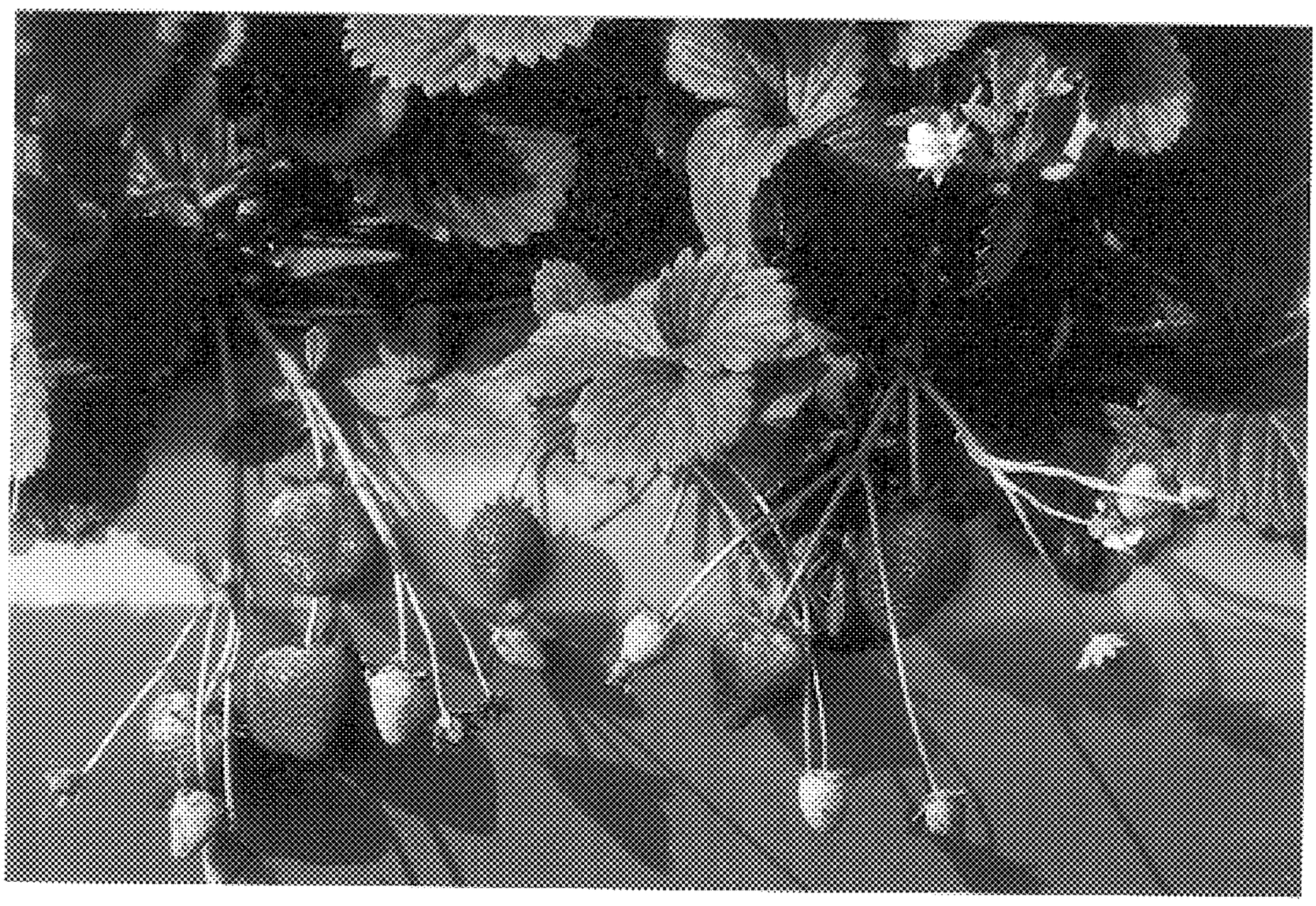

FIG. 2

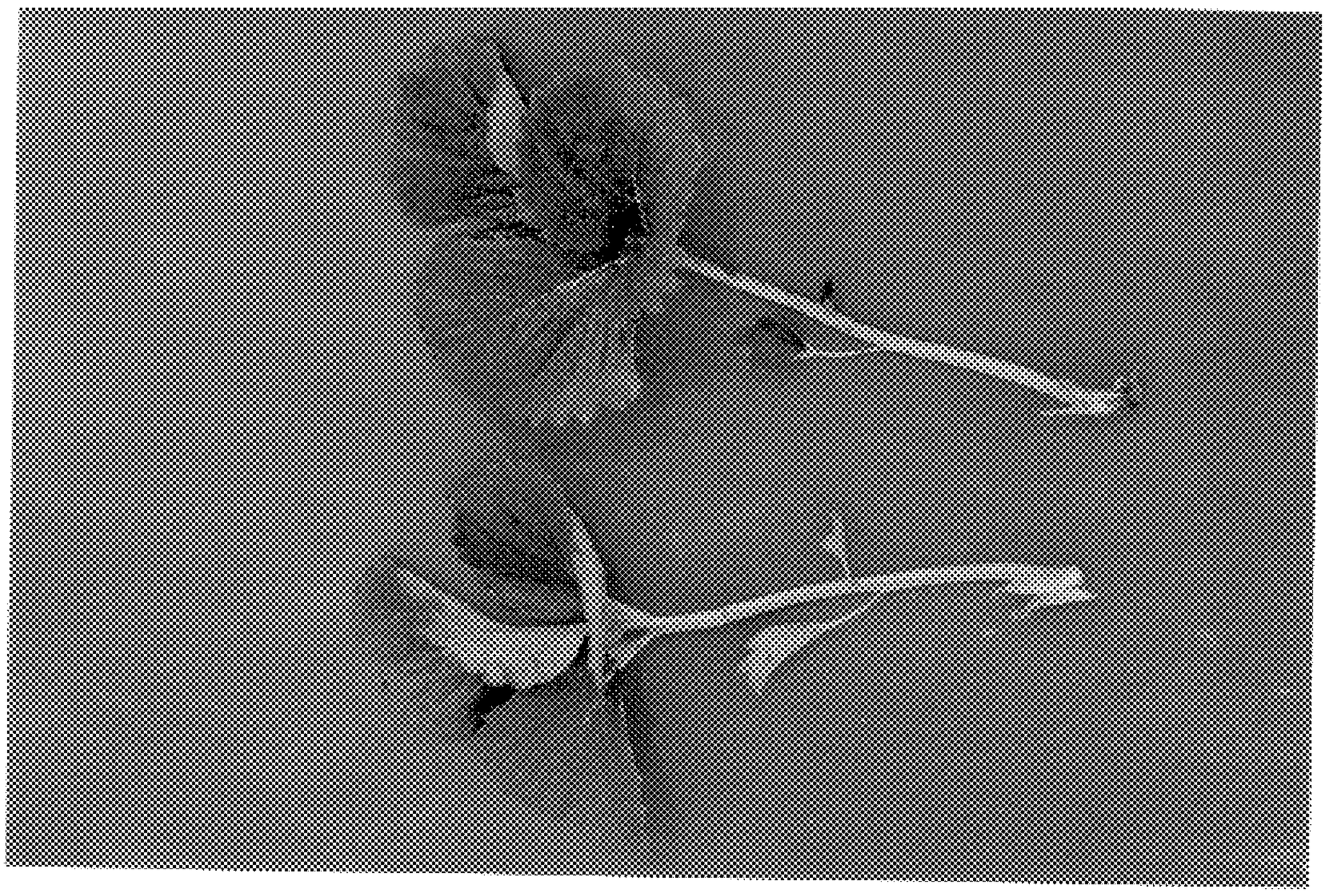

FIG. 3

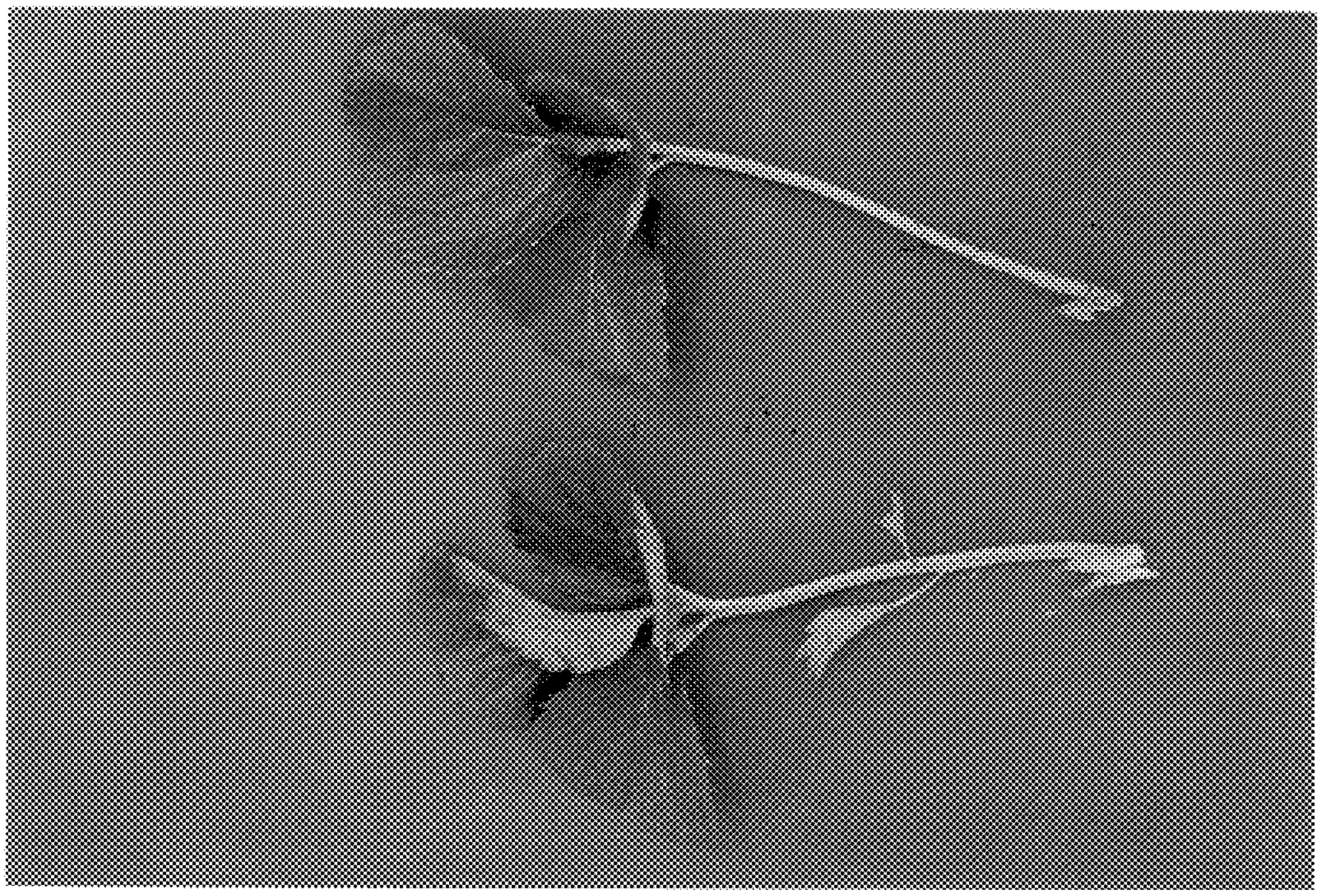

FIG. 4

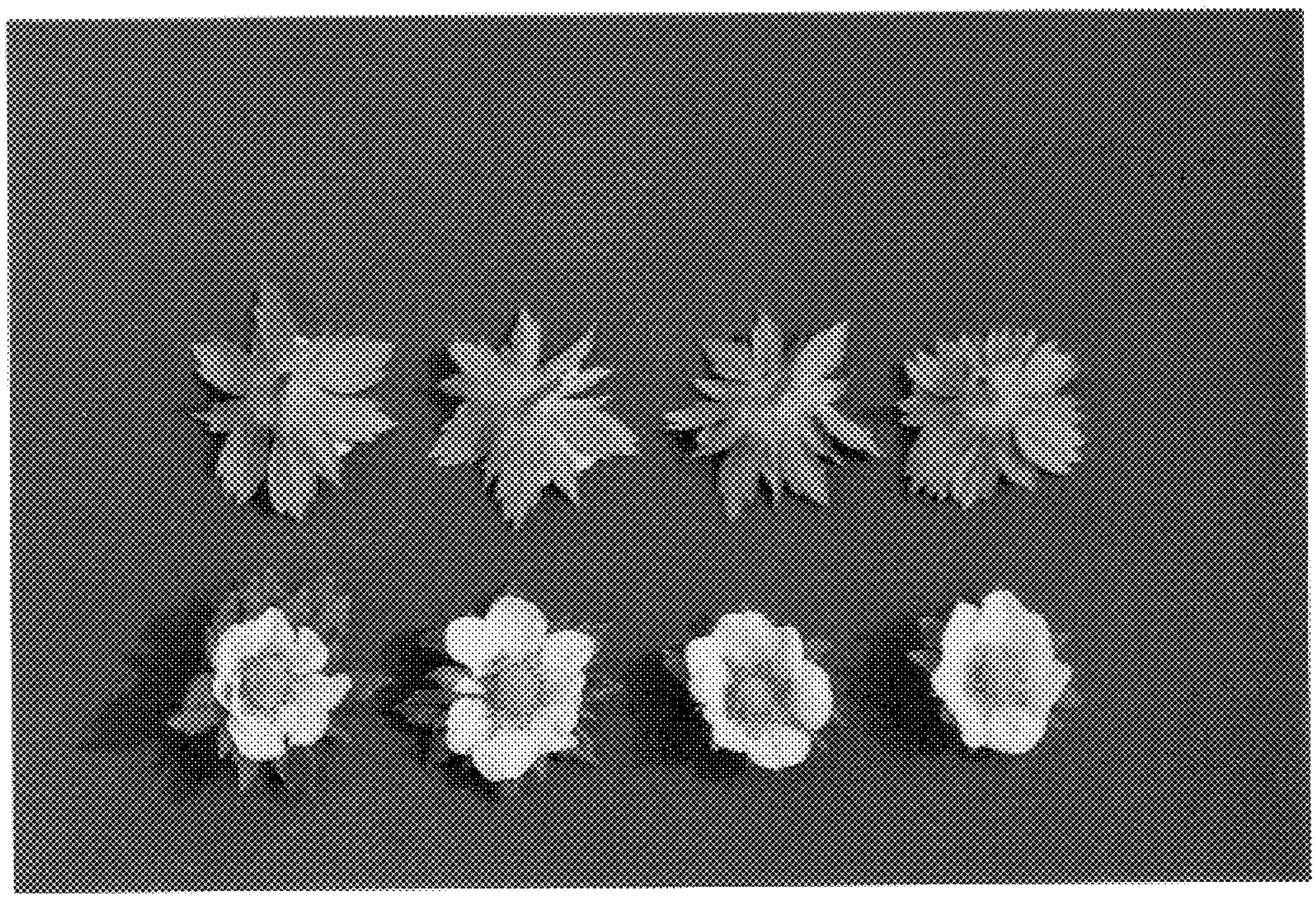

FIG. 5

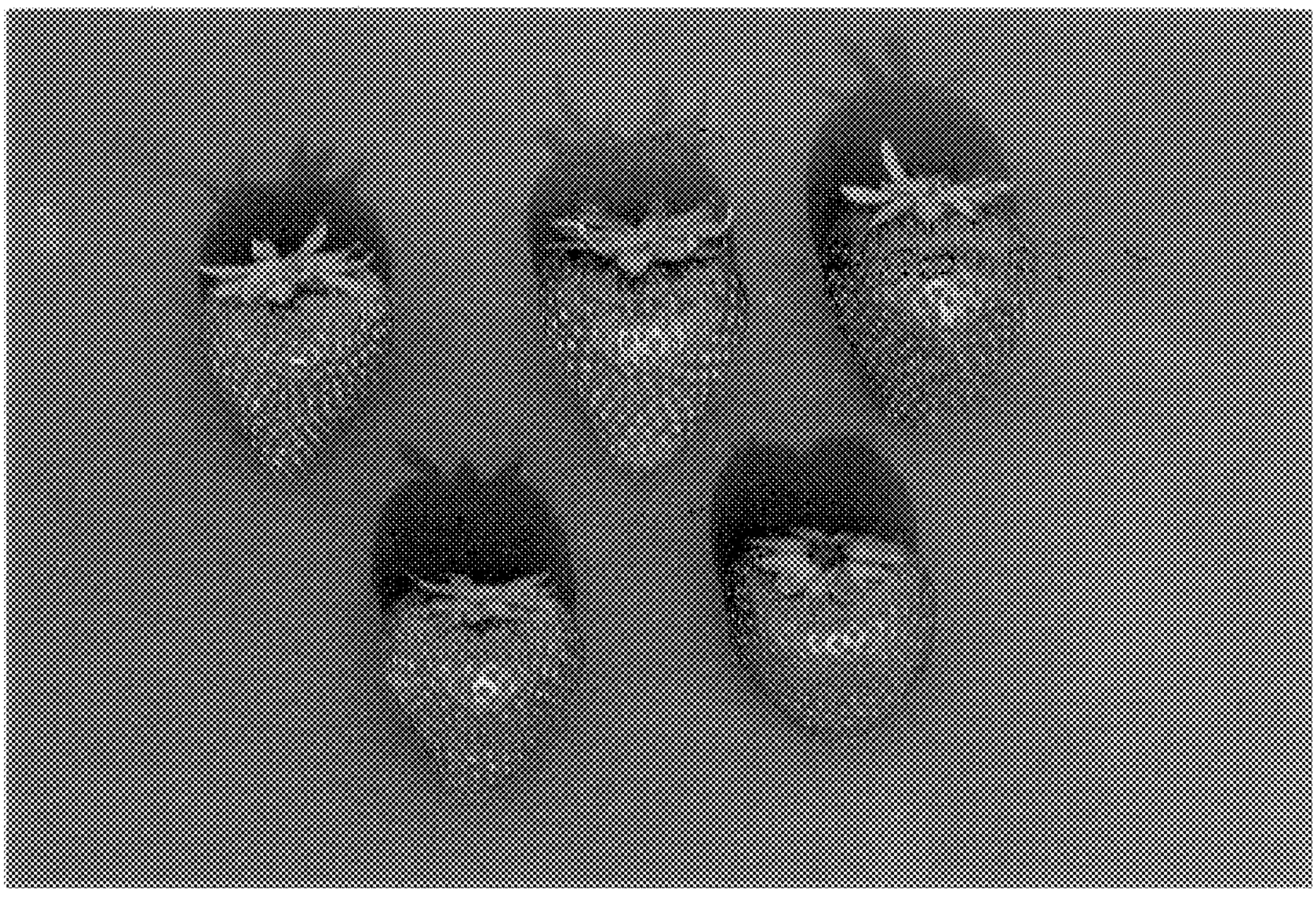

FIG. 6

FIG. 7