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Amorao et al.

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

(50) Latin Name: *Fragaria×ananassa*
Varietal Denomination: **Driscoll Camarillo**

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(58) **Field of Search** **Plt./208, 209**

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(57) **ABSTRACT**

This invention relates to a new and distinct variety of strawberry named 'Driscoll Camarillo'. The variety is similar to the varieties 'Baeza' and 'Ventura'. The variety is distinguished from 'Baeza' and 'Ventura' in that 'Driscoll Camarillo' has a longer fruiting truss, a dark green coloration of the upper side of the leaf, a globosely plant habit, even fruit coloration, and absent to small hollow center size.

5 Drawing Sheets

1

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

BACKGROUND OF THE INVENTION

The new variety originated as a result of a controlled cross between the strawberry plants 'Baeza' (U.S. Plant Pat. No. 11,548) and '33×257' (unpatented variety of Driscoll Strawberry Associates, Inc.) in an ongoing breeding program, and was discovered in Ventura County, Calif. in October, 1997. The original seedling of the new cultivar was asexually propagated by solons in a nursery in Shasta County, Calif. Propagates were transplanted to a controlled breeding plot in Ventura County, Calif., where the variety was identified and selected for further evaluation. 'Driscoll Camarillo' was subsequently asexually propagated and underwent further testing Ventura County, California for five 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 Camarillo'. 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 Camarillo' from those known to us are 'Baeza' (U.S. Plant Pat. No. 11,548) and 'Ventura'. There are several characteristics of the new variety that are different from, or not possessed by 'Baeza' and 'Ventura'. The new variety has a longer fruiting truss, a dark green coloration of the upper

2

side of the leaf, a globosely plant habit, even fruit coloration, and an absent to small hollow center size.

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.

FIG. 3 shows the under side of the flowers.

FIG. 4 shows a close-up of the fruit.

FIG. 5 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. Observations of 'Driscoll Camarillo', 'Baeza' and 'Ventura' were taken in side by side comparison in 2001. 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. 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 solons. Although propagation by solons 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 and 3. In the tables, the flowers described are secondary flowers except where indicated. 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 leaf width is 14.78 cm and the leaf length is 9.98 cm. The leaf margin is crenate, and the leaf texture is very strongly blistered. The petiolule length is 16.22 mm, the petiolule diameter is 2.22 mm, and the petiolule color is 149A (in The R.H.S. Colour Chart). The anthocyanin color on stolons is 60C (in R.H.S. Colour Chart). The stolon thickness is 3.875 mm. The sepal length is 9.18 mm, sepal diameter is 5.4 mm, and sepal color is 146B (in R.H.S. Colour Chart). The reproductive organs are typical for the species. The color of the anthers is Yellow 13A (in R.H.S. Colour Chart), and the color of the pistils and receptacle are Yellow 7A (in R.H.S. Colour Chart). The average achene weight is 0.0054 g, and there are an average number of 224 achenes per berry.

Table 1 provides a quantitative comparison of the plant and fruit characteristics of the new variety 'Driscoll Camarillo' compared with characteristics of 'Baeza' and 'Ventura'. Table 2 provides additional information of the plant and fruit characteristics of the new variety 'Driscoll Camarillo' compared with characteristics of the varieties 'Baeza' and 'Ventura'. Table 3 provides reactions of the new variety to stresses, pests and disease as compared to the varieties 'Baeza' and 'Ventura'. Table 4 provides isozyme characteristics of the new variety as compared to the varieties 'Baeza' and 'Ventura'.

TABLE 1

DETAILED COMPARISON OF CAMARILLO, BAEZA AND VENTURA			
	CAMARILLO	BAEZA	VENTURA
<u>Plant Characteristics</u>			
Height of Plant (cm)	23.3	20.8	21.0
Spread of Plant (cm)	42.7	38.2	38.7
Number of Crowns	4.8	3.0	3.3
<u>Leaf Characteristics</u>			
Terminal Leaflet Length (cm)	8.2	8.5	7.5
Terminal Leaflet Width (cm)	8.2	8.7	7.5
Terminal Leaflet Length/Width	1.0	0.98	.99
# Teeth/Terminal Leaflet	24.8	25.4	22.4
Color of upper side	dark green 147A	light to medium green 147A	medium green 137A
Color of under side	light green 138B	light green 138B	light green 138B
Petiole Length (cm)	15.9	14.5	14.2
Petiole Color	149A	144A	145A
Bract Frequency	yellow green 42%	yellow green 67%	yellow green 50%
Stipule Length (cm)	mostly double	mostly double	mostly double
Stipule Width (cm)	3.5	3.5	2.8
<u>Stolon</u>	1.2	1.1	1.1
Diameter at base of last daughter	4.09	4.12	4.05
<u>Flower Characteristics</u>			
Petal Length (cm)	1.22	1.10	1.19
Petal Width (cm)	1.39	1.22	1.09
Petal Length/Width Ratio	0.88	0.90	1.09

TABLE 1-continued

DETAILED COMPARISON OF CAMARILLO, BAEZA AND VENTURA			
	CAMARILLO	BAEZA	VENTURA
Petal color	155B		
Flower Diameter (cm)	2.61	2.50	2.40
Calyx Diameter (cm)	2.98	2.55	2.57
<u>Fruiting Truss</u>			
Length (cm)	32.0	28.5	24.8
<u>Fruit Characteristics</u>			
Fruit Length (cm)	4.1	4.2	4.5
Fruit Width (cm)	4.0	3.8	4.0
Fruit Length/Width Ratio	1.03	1.11	1.11
Average Berry Weight (g)	21.1	21.5	24.3
External Color	46A red	46A red	46A red
Internal Color	34B & 155A orange red & white	42B & 155D white & orange red	44A orange red
Average % brix	9.26	10.38	9.27
Brix/Acid Ratio	12.62	12.87	12.95
Achene Coloration	184B and 13B	13A and 46A	13B and 45B
Marketable Yield in 2001 (g/plant)	410	293	118

TABLE 2

CHARACTERISTICS OF CAMARILLO, BAEZA AND VENTURA			
	CAMARILLO	BAEZA	VENTURA
<u>Plant</u>			
Habit	globose	flat globose	globose to flat
Density	open	open	medium
Vigor	medium	medium	weak to medium
<u>Leaf</u>			
Shape in cross section	concave	concave	slightly concave
Interveinal blistering	very strong	strong to very strong	strong
Glossiness	medium to strong	weak	medium
Number of leaflets	three only	three only	three only
Terminal leaflet margin profile	revolute to flat	revolute to flat	revolute to flat
Terminal leaflet shape of base	rounded	obtuse to rounded	rounded
Terminal leaflet shape of teeth	rounded	acute to obtuse	obtuse
Stipule pubescence	sparse	sparse	sparse
Petiole pubescence	sparse	very sparse to sparse	sparse
Petiole pose of hairs	outwards	outwards	outwards
<u>Stolon</u>			
Amount	few to medium	few to medium	few to medium
Anthocyanin coloration	weak to medium	weak to medium	medium
Thickness	thick	thick to very thick	medium to thick
Pubescence	sparse	medium to dense	dense
<u>Inflorescence</u>			
Position relative to foliage	above	level to above	level to above

TABLE 2-continued

CHARACTERISTICS OF CAMARILLO, BAEZA AND VENTURA			
	CAMARILLO	BAEZA	VENTURA
Diameter of calyx relative to corolla on secondary flowers	smaller to same size	same size to larger	smaller
Diameter of inner calyx relative to outer on secondary flowers	same size	same size	same size
Spacing of petals	overlapping	overlapping	touching to overlapping
<u>Fruiting Truss</u>			
Attitude at first picking	prostrate	prostrate	semi-erect
<u>Fruit</u>			
Predominant shape	cordate	conical	conical to cordate
Difference in shapes between primary and secondary fruits	slight	very slight to slight	slight
Band without achenes	absent or very narrow	very narrow to narrow	narrow
Unevenness of surface	weak	weak to medium	weak to medium
Evenness of color	even	slightly uneven to even	slightly even
Glossiness	strong	strong	strong
Insertion of achenes	below surface	level to below surface	below surface
Insertion of calyx	in a basin	level	in a basin to level
Pose of the calyx segments	spreading	spreading to reflexed	reflexed
Size of calyx in relation to fruit on secondary fruit	smaller	same size to larger	smaller
Adherence of calyx	strong	strong	weak to medium
Firmness of flesh	firm	medium to firm	firm
Evenness of flesh color	slightly uneven	uneven	slightly uneven
Distribution of flesh color	marginal and central	marginal to central	marginal to central
Hollow center size	absent to small	large	small
Sweetness	medium	medium	medium to strong
Texture when tasted	medium	medium	fine
Acidity	medium	medium	weak to medium
Time of Flowering	mid to late August	mid to late August	mid to late August
Harvest Interval in 2001 (Week Ending)	9/29-12/22	9/29-12/22	10/6-12/22
Type of Bearing	fully everbearing	fully everbearing	fully everbearing

REACTION TO STRESS, PESTS, AND DISEASE

TABLE 3

5.3 REACTION TO STRESS, PESTS, AND DISEASE			
	CAMARILLO	BAEZA	VENTURA
<u>Reaction to Stress</u>			
high pH	moderately resistant	moderately resistant	moderately resistant
high soil salt levels	moderately resistant	susceptible	moderately resistant

TABLE 3-continued

5.3 REACTION TO STRESS, PESTS, AND DISEASE			
	CAMARILLO	BAEZA	VENTURA
<u>Reaction to Pests</u>			
<i>Tetranychus urticae</i>	moderately susceptible	moderately susceptible	moderately susceptible
<i>Lygus hesperus</i>	susceptible	susceptible	susceptible
<u>Reaction To Diseases</u>			
Botrytis fruit rot	susceptible	susceptible	moderately susceptible
Powdery mildew	susceptible	highly susceptible	highly susceptible
Verticillium wilt	susceptible	susceptible	susceptible
Strawberry Mottle Virus	moderately resistant	moderately resistant	moderately resistant
<i>Xanthomonas fragariae</i>	moderately resistant	moderately resistant	moderately resistant

ISOZYME ANALYSIS

In addition to the morphological description above, the new cultivar 'Driscoll Camarillo' 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 'Driscoll Camarillo', 'Baeza', and 'Ventura' were analyzed by electrophoresis for isozyme patterns of the enzymes phosphoglucosomerase ("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 CAMARILLO, BAEZA AND VENTURA			
Locus	CAMARILLO	BAEZA	VENTURA
PGI	A2	A1	A2
LAP	B3	B3	B3
PGM	C4	C3	C4

What is claimed is:

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

* * * * *



FIG. 1

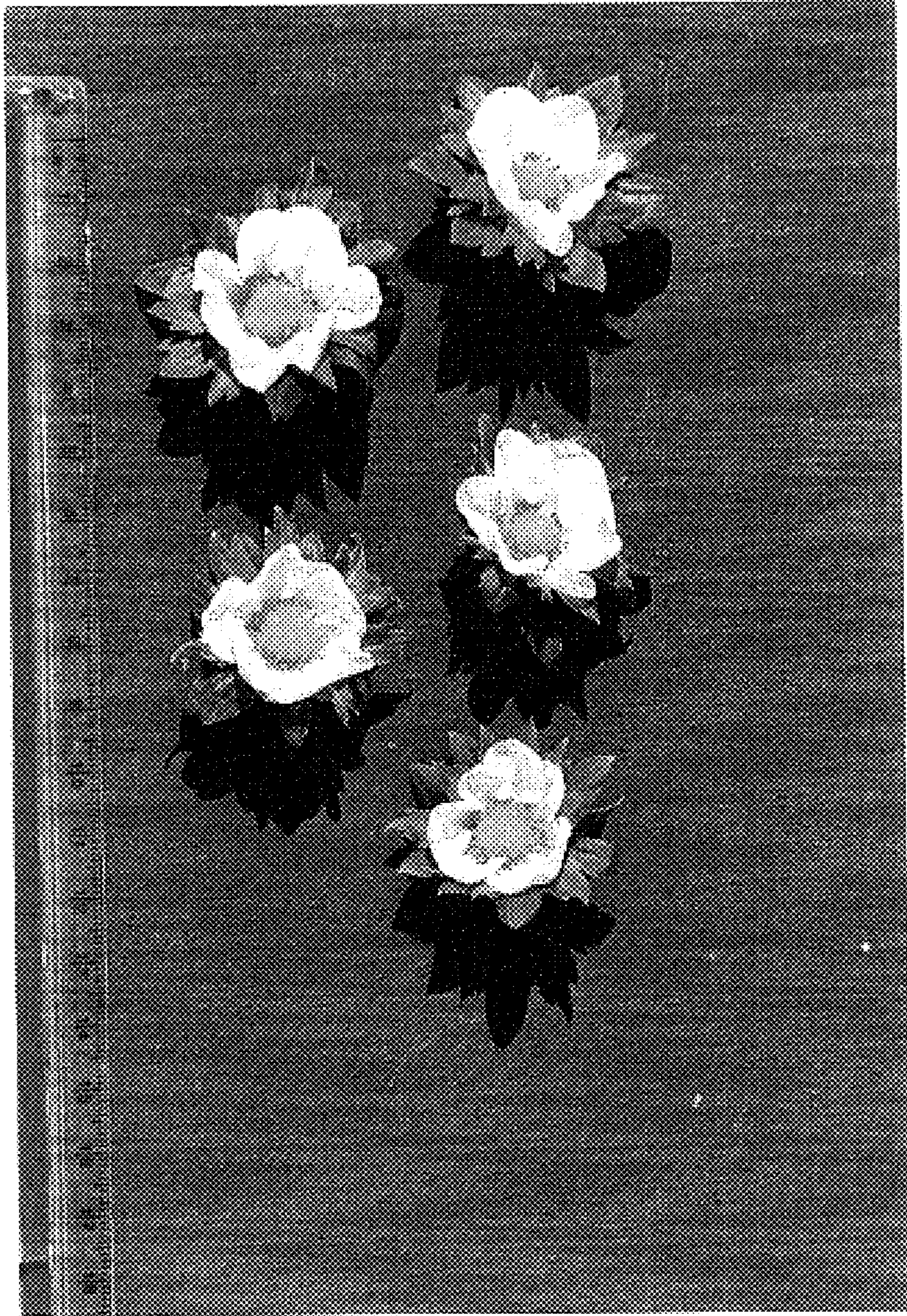


FIG. 2

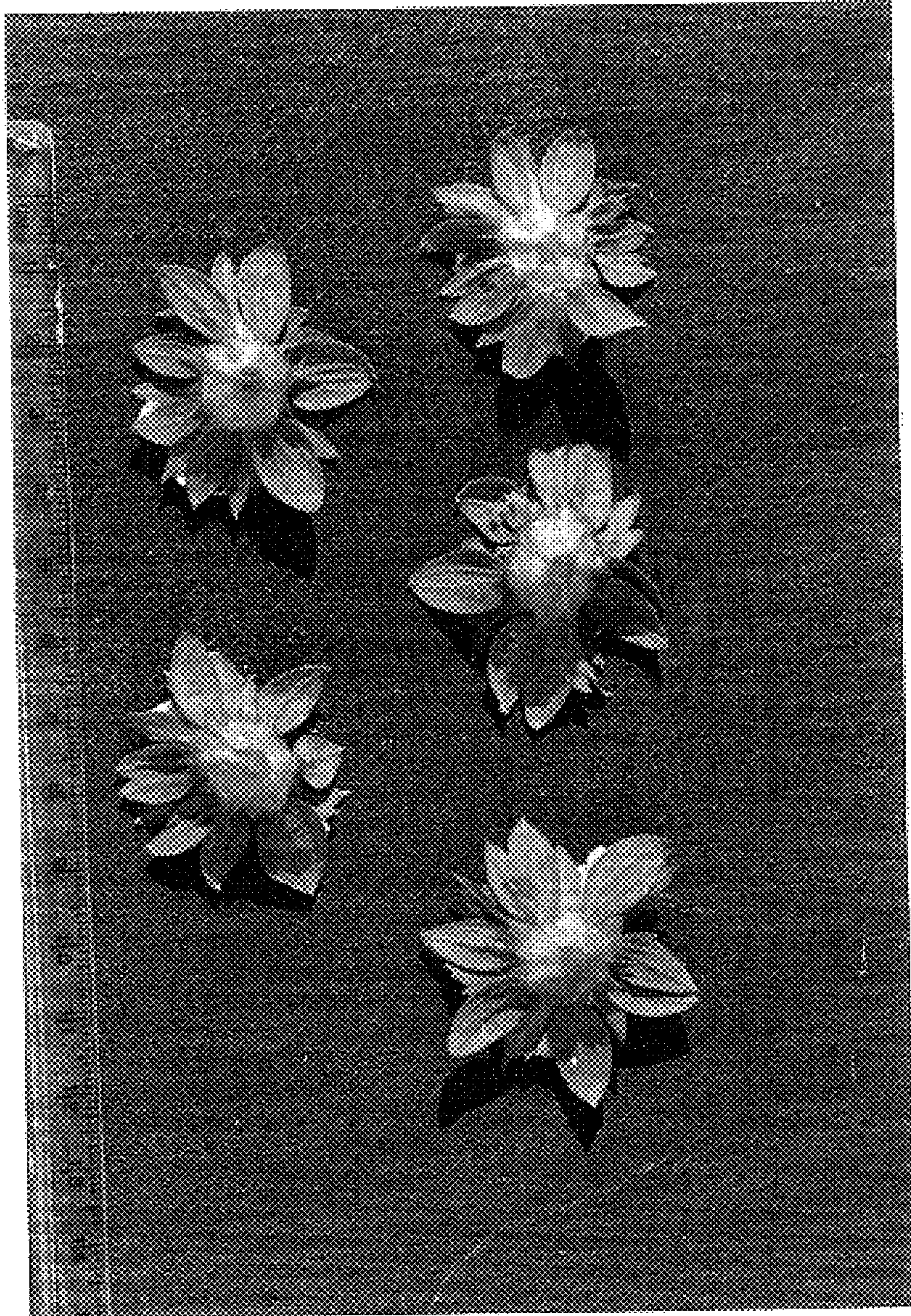


FIG. 3

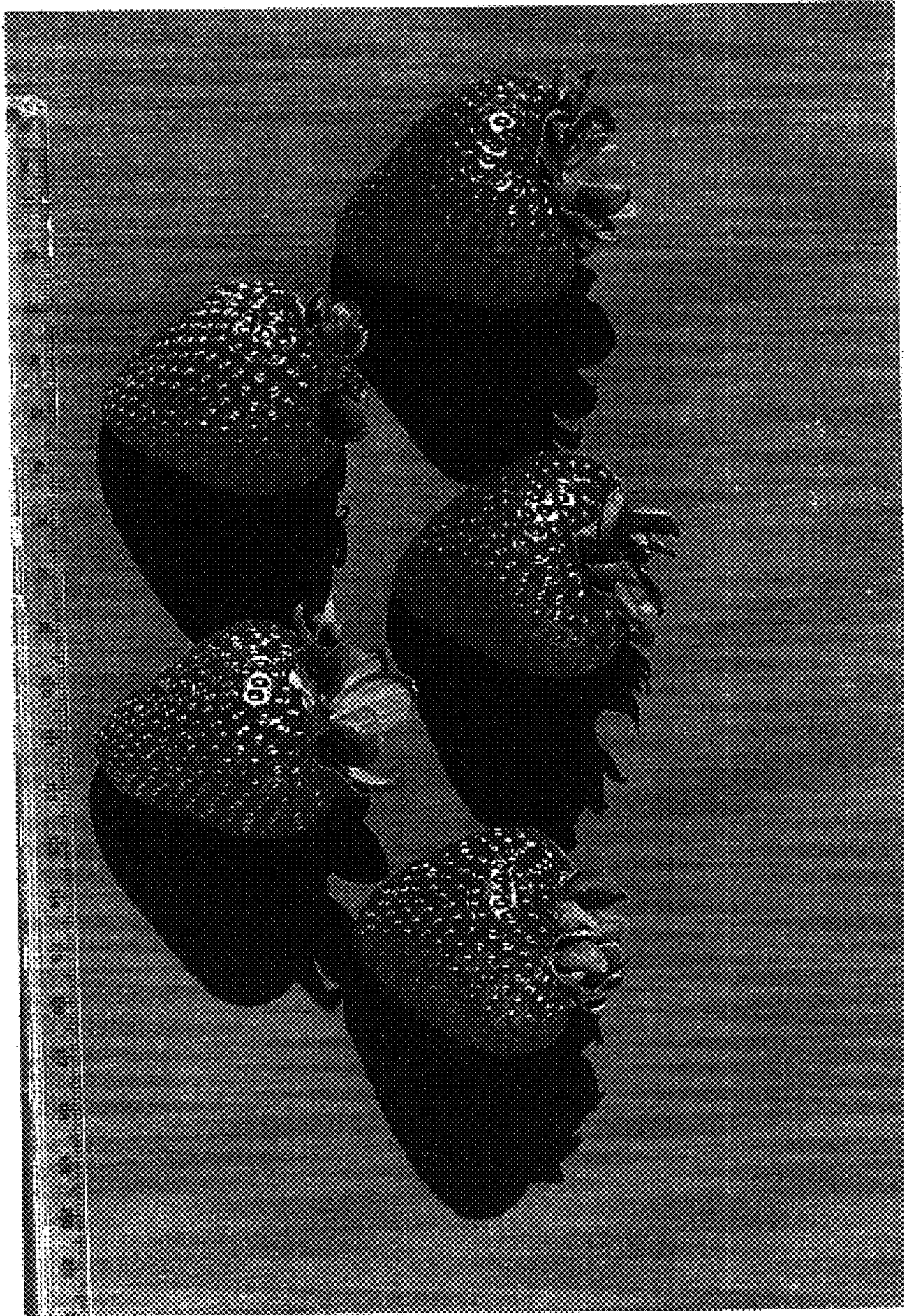


FIG. 4

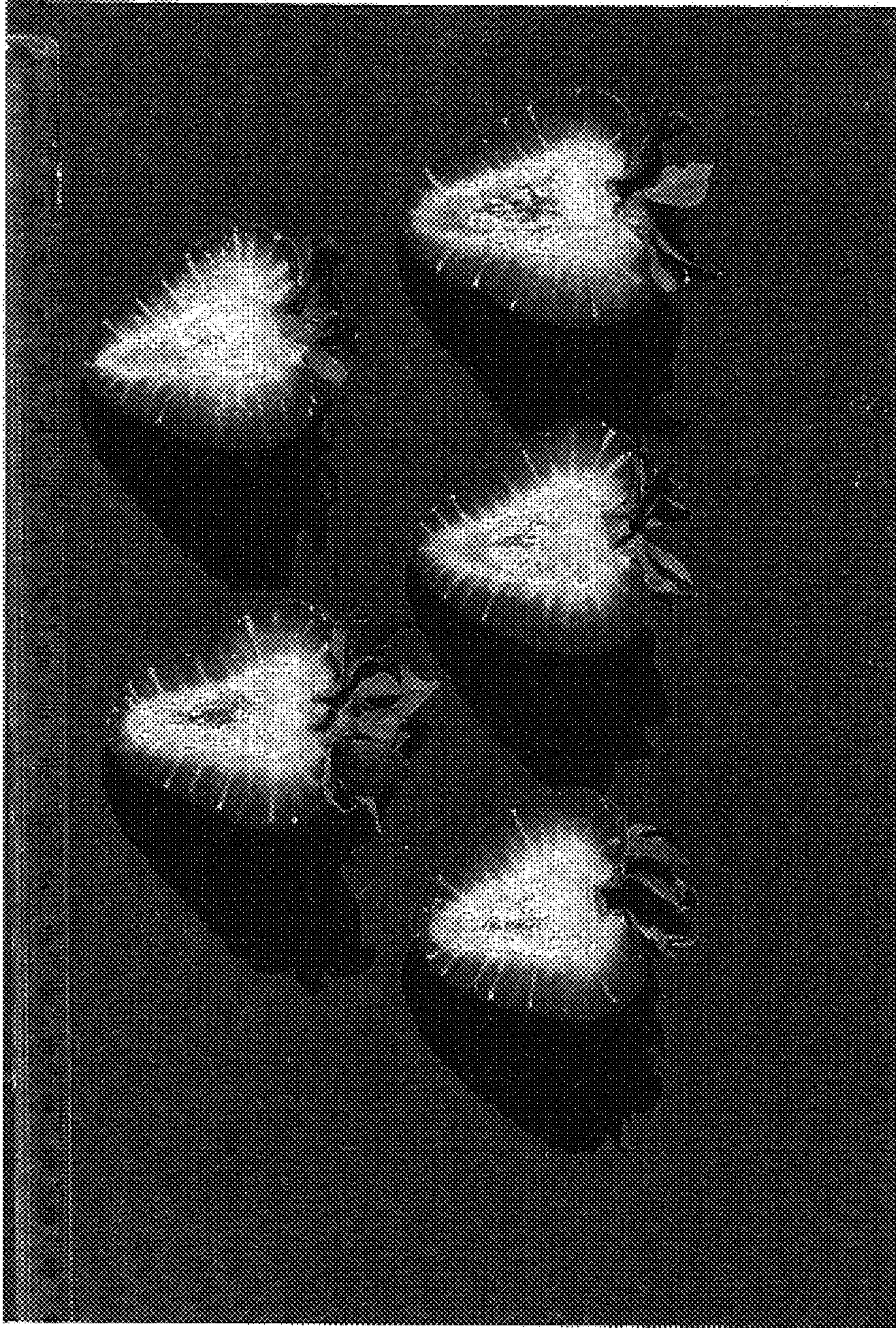


FIG. 5