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Mendoza et al.

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(54) **STRAWBERRY PLANT NAMED ‘DRISSTRAWNINETY’**

(50) Latin Name: *Fragaria x ananassa*
Varietal Denomination: **DrisStrawNinety**

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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of strawberry plant named ‘DrisStrawNinety’, particularly selected for the sweetness, firmness, shelf life, and shipping capability of its fruit, as well as its high yield, is disclosed.

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STRAWBERRY PLANT NAMED
'DRISSTRAWNINETY'

Latin name:

Botanical classification: *Fragaria* x *ananassa*.

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

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 'DrisStrawNinety'.

Strawberry plant variety 'DrisStrawNinety' originated from a controlled cross between the proprietary female parent '114S240' (unpatented) and the male parent 'DrisStrawTwentyEight' (U.S. Plant Pat. No. 23,459). Progeny plants from this cross, including 'DrisStrawNinety', were asexually propagated via stolons in Shasta County, Calif. in the summer of 2012. Strawberry plant variety 'DrisStrawNinety' was later specifically identified and selected in Monterey County, Calif. in June of 2013.

'DrisStrawNinety' was subsequently asexually propagated via stolons, and has undergone testing at test plots in Tangancicuaro, Mexico for five years (2015 to 2020). The present variety has been found to be stable and reproduce true to type through successive asexual propagations via stolons and tissue culture.

'DrisStrawNinety' was particularly selected for the sweetness, firmness, shelf life, and shipping capability of its fruit, as well as its high yield.

DESCRIPTION OF THE DRAWINGS

This new strawberry plant is illustrated by the accompanying photographs. The colors shown are as true as can be

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reasonably obtained by conventional photographic procedures. Unless otherwise indicated, the photographs are of plants that are six months old.

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

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

FIG. 3 illustrates the upper surface (top row) and lower surface (bottom row) of flowers of variety 'DrisStrawNinety'.

FIG. 4 illustrates the upper surface (top) and lower surface (bottom) of leaves of variety 'DrisStrawNinety'.

FIG. 5 illustrates a view of whole plants of variety 'DrisStrawNinety'.

FIG. 6 illustrates another view of whole plants of variety 'DrisStrawNinety'.

DETAILED BOTANICAL DESCRIPTION

The following detailed descriptions set forth the distinctive characteristics of 'DrisStrawNinety'. The data which define these characteristics is based on observations taken in Tangancicuaro, Mexico from 2015 to 2020. 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. 'DrisStrawNinety' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawNinety' was taken from plants that were six 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.—'DrisStrawNinety'.

Parentage:

Female parent.—Proprietary strawberry plant '114S240' (unpatented).

Male parent.—'DrisStrawTwentyEight' (U.S. Plant Pat. No. 23,459).

Plant:

Height.—15 cm.

Diameter.—39 cm.

Number of crowns per plant.—4.

Growth habit.—Semi-upright.

Density of foliage.—Medium.

Vigor.—Medium.

Stolon:

Number of daughter plants per square foot.—2.

Diameter at bract.—3.6 mm.

Anthocyanin coloration.—Weak.

Anthocyanin color.—RHS 39B (Deep yellowish pink).

Density of pubescence.—Medium.

Length.—35.4 cm.

Overall color.—RHS 144B (Strong yellow green).

Leaf:

Number of leaflets.—Three only.

Color of leaf upper surface.—RHS NN137A (Greyish olive green).

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Color of lower surface.—RHS 147C (Moderate yellow green).
Blistering.—Medium.
Glossiness.—Strong.
Variation.—Absent.
Leaf length.—9.7 cm.
Leaf width.—9.1 cm.
Terminal leaflet.—Length: 7.5 cm. Width: 7.1 cm. Length/width ratio: 1.0. Number of teeth per terminal leaflet: 22. Shape of base: Obtuse. Shape of apex: Rounded. Margin: Serrate to crenate. Shape in cross section: Concave.
Petiole.—Length: 13.3 cm. Diameter: 2.9 mm. Attitude of hairs: Slightly outwards. Bract frequency (number present on each petiole): 2. Color: RHS 144C (Strong yellow green).
Petiolule.—Length: 9 mm. Diameter: 1.8 mm. Color: RHS 144C (Strong yellow green).
Stipule.—Length: 2.9 cm. Width: 9 mm. Anthocyanin coloration: Weak. Anthocyanin color: RHS 48D (Strong pink). Overall color: RHS 160C (Pale greenish yellow).
 Inflorescence:
Number of flowers per plant.—23.
Position of inflorescence in relation to foliage.—Same level.
Pedicel.—Length: 10.2 cm. Color: RHS 144C (Strong yellow green). Attitude of hairs: Slightly outwards.
Flower.—Flower diameter (petal tip to petal tip on non-flattened flower): 28 mm. Arrangement of petals: Free. Size of calyx in relation to corolla: Larger. Stamen: Present.
Petal.—Length: 13 mm. Width: 13 mm. Length/width ratio: 1.0. Number of petals per flower: 5. Color of upper side: RHS NN155C (White). Color of lower side: RHS NN155C (White). Overall shape: Orbicular. Base shape: Concavo-convex. Apex shape: Rounded. Margin type: Smooth.
Calyx.—Diameter (sepal tip to sepal tip, measured on back of flower): 37 mm.
Sepal.—Length: 14 mm. Width: 9 mm. Number of sepals per flower: 10. Color of upper side: RHS 138A (Moderate yellowish green). Color of lower side: RHS NN137C (Greyish olive green). Overall shape: Elliptical. Base shape: Cuneate. Apex shape: Convex. Margin type: Smooth.
Flowering.—Flowering interval: Mid-September to mid-March.
 Fruit:
Fruit size.—Length: 40 mm. Width: 40 mm. Length/width ratio: 1.0.
Fruit hollow.—Length: 13 mm. Width: 3 mm. Length/width ratio: 4.6.
Shape.—Cordate.
Difference in shape of terminal and other fruits.—None or very slight.
Fruit color.—RHS 45A (Vivid red).
Evenness of color.—Even or very slightly uneven.
Glossiness.—Medium.
Evenness of surface.—Even or very slightly uneven.
Width of band without achenes.—Narrow.
Position of achenes.—Level with surface.
Position of calyx attachment.—Level with fruit.
Attitude of sepals.—Outwards.

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Diameter of calyx in relation to diameter of fruit.—Slightly larger.
Adherence of calyx.—Strong.
Firmness.—Firm.
Color of flesh (excluding core).—RHS 42C (Strong reddish orange).
Evenness and distribution of flesh color.—Moderately even.
Color of core.—RHS 41C (Moderate reddish orange).
Juiciness.—Moderate.
Fruit weight.—27.13 g.
Soluble solids (in ° Brix).—7.5.
Fruiting.—Harvest interval: Mid-October to mid-March. Type of bearing: Fully remontant. Productivity: 32,992 kg to 52,445 kg of fruit per hectare per season from six-month-old plants when grown in Tangancicuaro, Mexico. Market use of fruit: Fresh market. Storage characteristics: Following harvest, on average more than 29% of fruit is marketable after 9 days in storage.
 Resistance to abiotic stress, pests, and diseases:
Two-spotted spider mite (tetranychus urticae).—Moderately susceptible.
Botrytis fruit rot (botrytis cinerea).—Moderately susceptible.

COMPARISON WITH PARENTAL AND
REFERENCE VARIETIES

‘DrisStrawNinety’ differs from the female parent proprietary strawberry plant parent ‘114S240’ (unpatented) in that ‘DrisStrawNinety’ has a less vigorous and less dense plant than ‘114S240’. In addition, the fruit of ‘DrisStrawNinety’ is less sweet than the fruit of ‘114S240’.

‘DrisStrawNinety’ differs from the male parent ‘DrisStrawTwentyEight’ (U.S. Plant Pat. No. 23,459) in that the fruit of ‘DrisStrawNinety’ is larger than the fruit of ‘DrisStrawTwentyEight’. In addition, the fruit of ‘DrisStrawNinety’ has reduced shelf life compared to the fruit of ‘DrisStrawTwentyEight’.

‘DrisStrawNinety’ differs from the reference variety ‘DrisStrawSeventyEight’ (U.S. Plant Pat. No. 31,655) in that ‘DrisStrawNinety’ has a concave shape of terminal leaflet in cross section, a free arrangement of petals, a level with fruit position of calyx attachment on fruit, and an outwards attitude of sepals on fruit, whereas ‘DrisStrawSeventyEight’ has a convex shape of terminal leaflet in cross section, an overlapping arrangement of petals, an inserted position of calyx attachment on fruit, and an upwards attitude of sepals on fruit. In addition, ‘DrisStrawNinety’ has a fully remontant type of bearing, while ‘DrisStrawSeventyEight’ has a partially remontant type of bearing.

‘DrisStrawNinety’ differs from the reference variety ‘DrisStrawSeventyNine’ (U.S. Plant Pat. No. 32,498), in that ‘DrisStrawNinety’ has strong leaf glossiness, a concave shape of terminal leaflet in cross section, a free arrangement of petals, and a cordate shape of fruit, whereas ‘DrisStrawSeventyNine’ has medium leaf glossiness, a convex shape of terminal leaflet in cross section, a touching arrangement of petals, and a conical shape of fruit.

We claim:

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

* * * * *

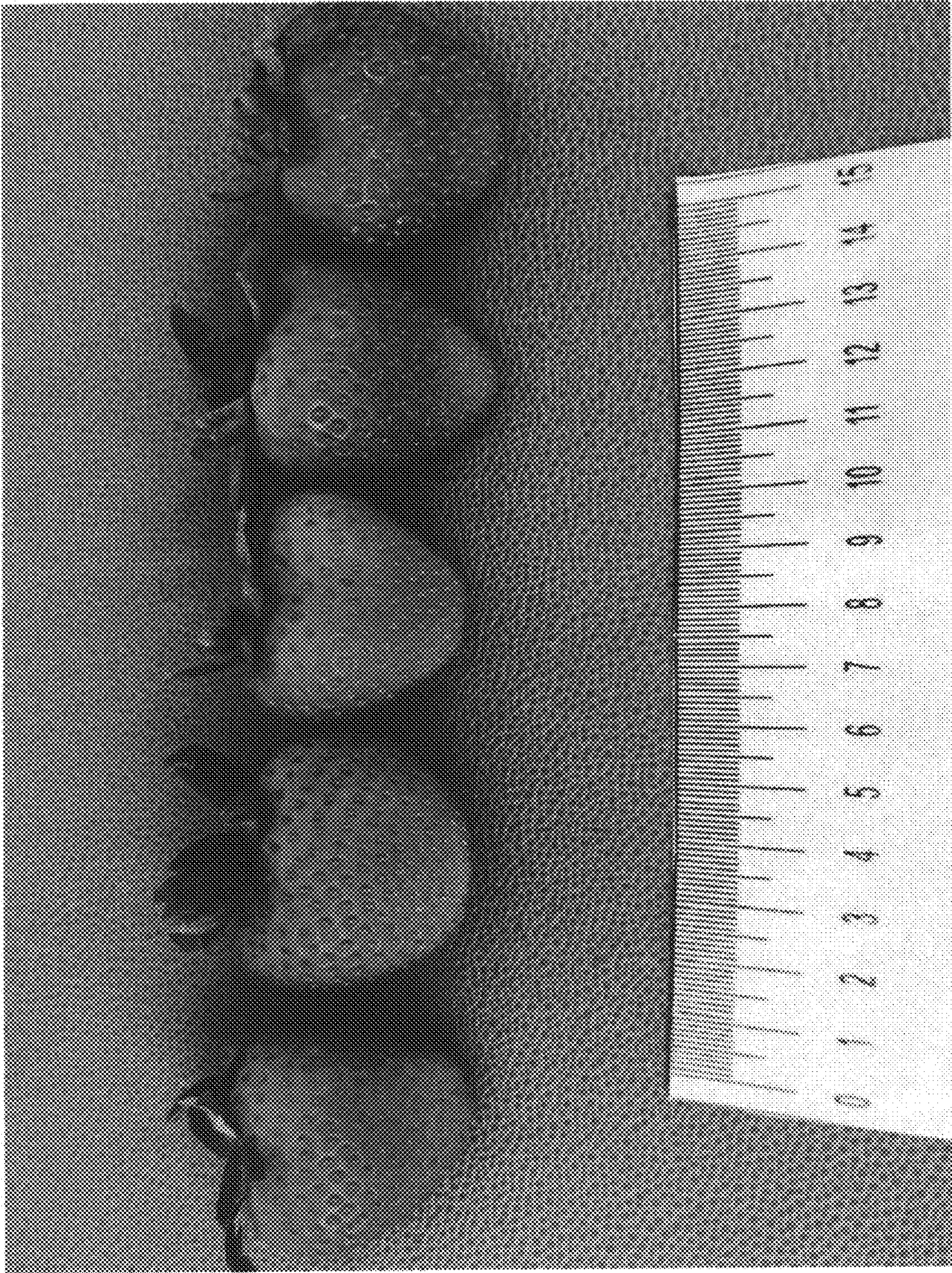


FIG. 1

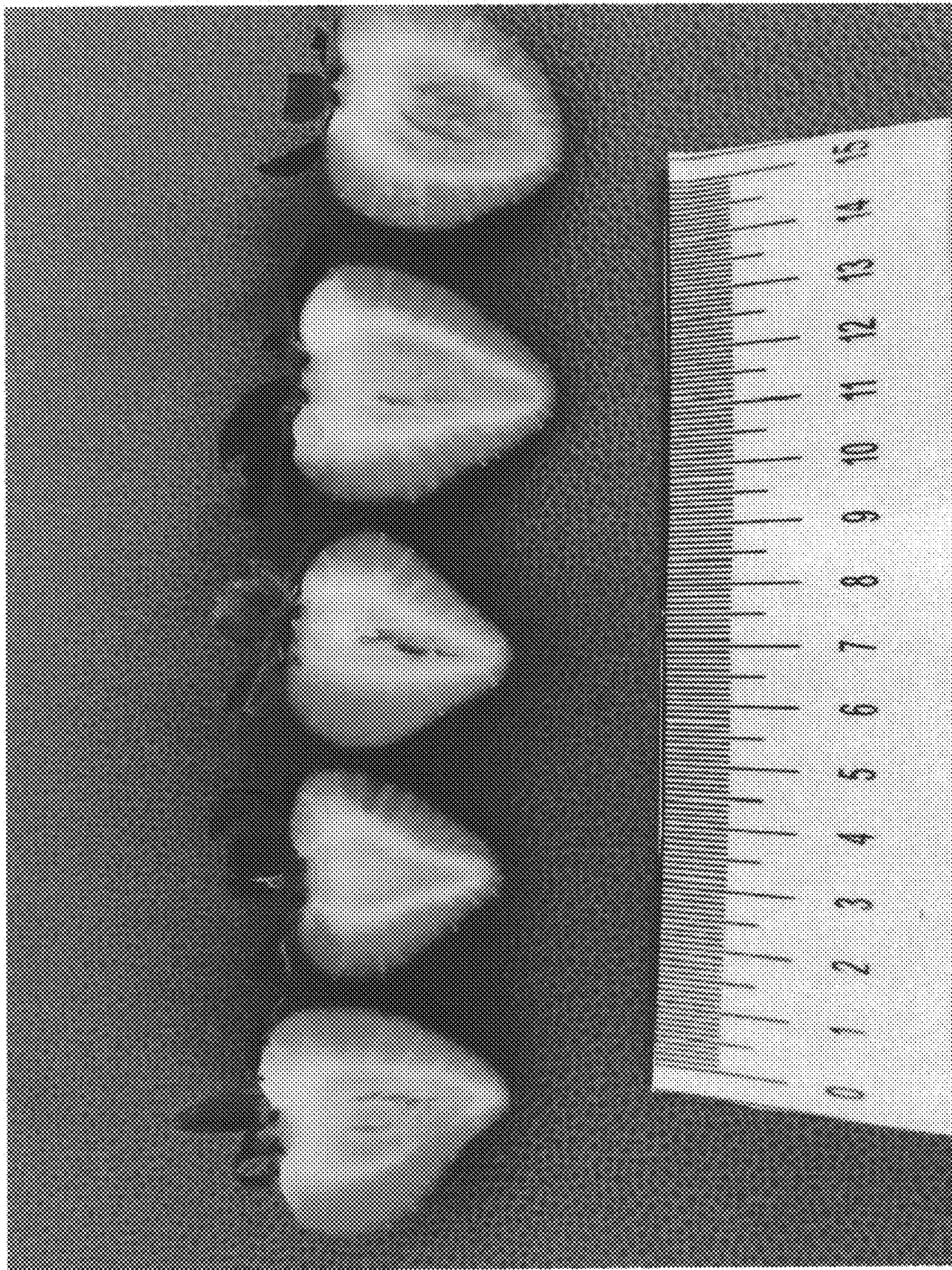


FIG. 2

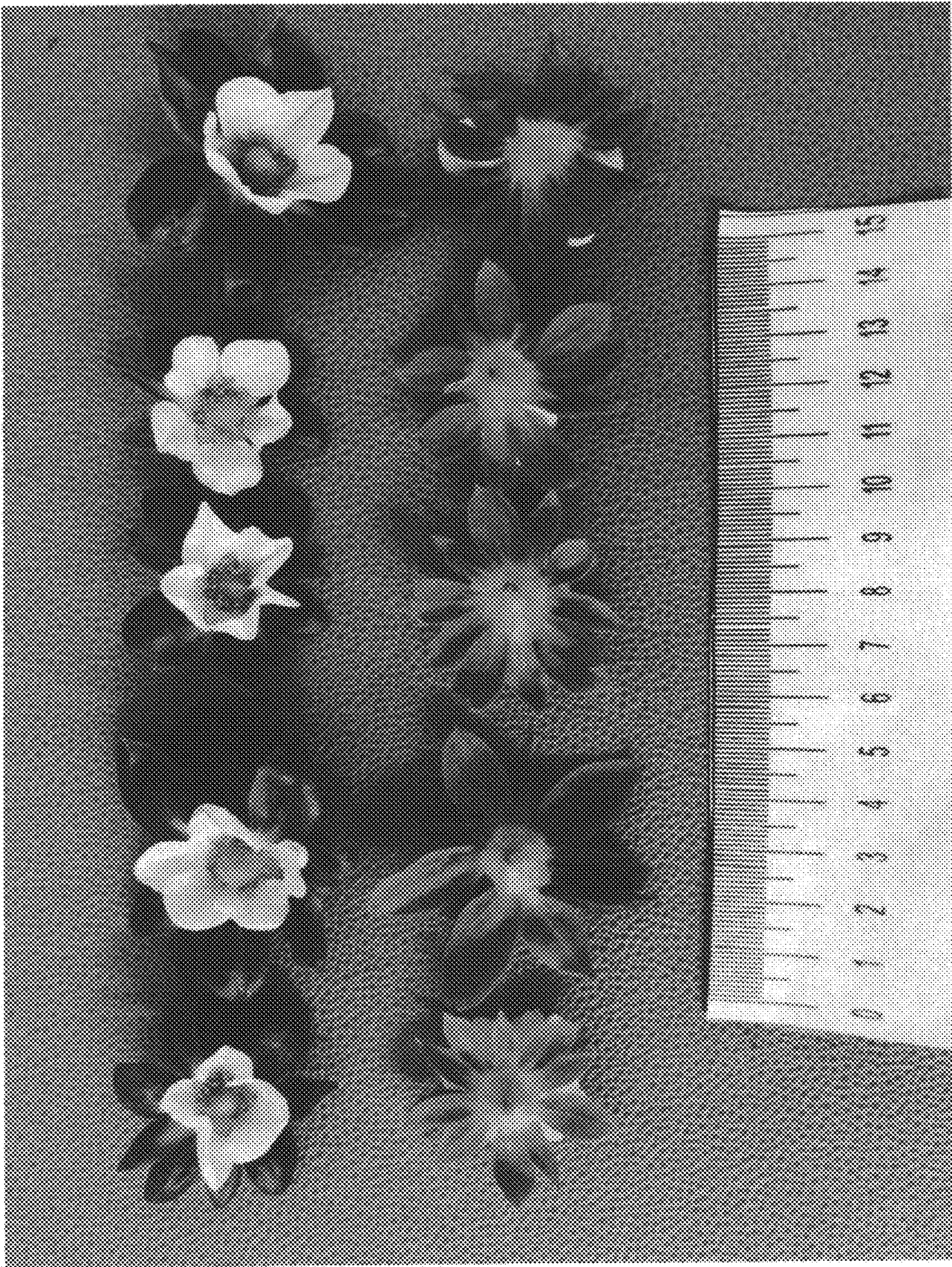


FIG. 3

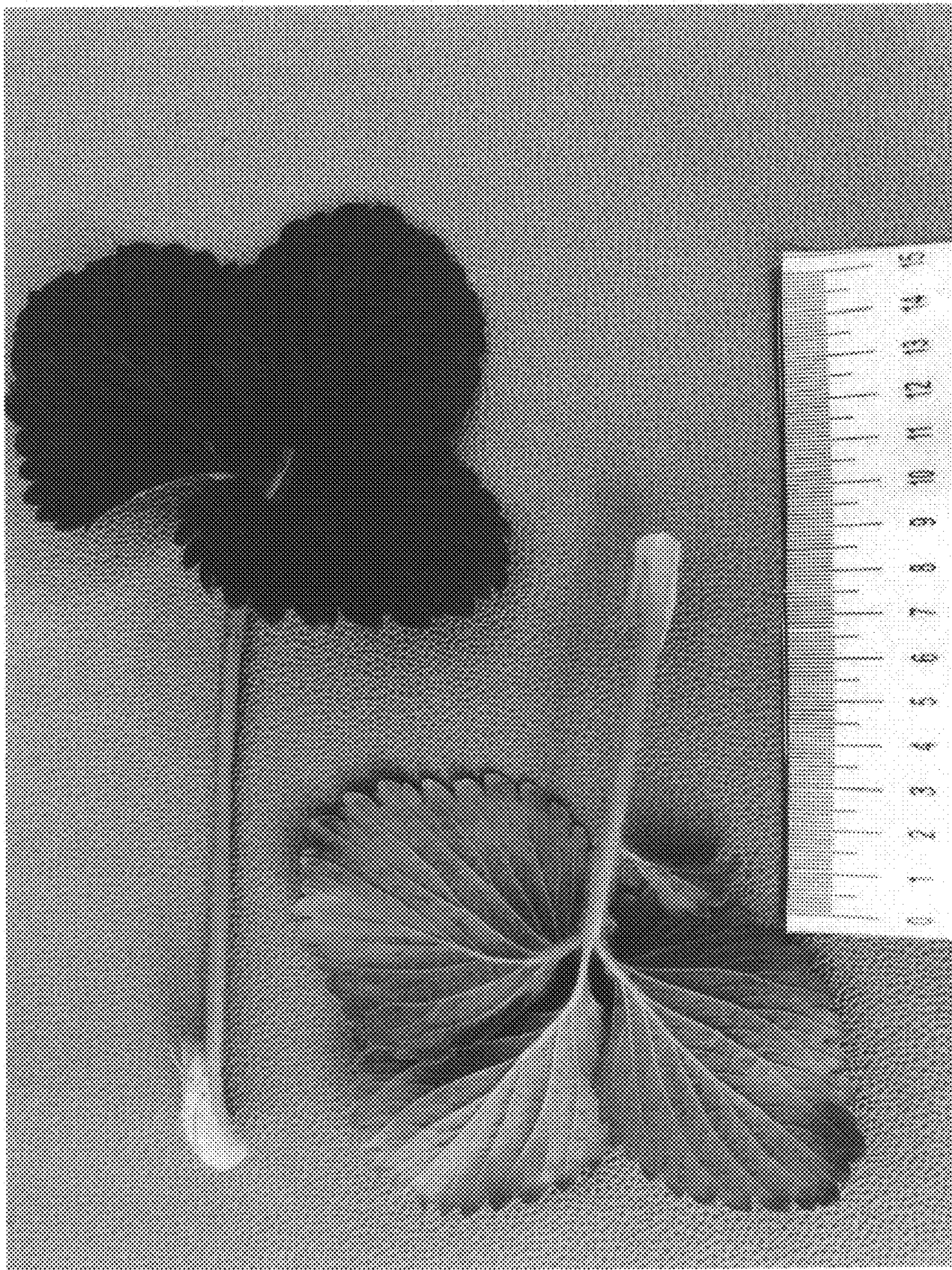


FIG. 4



FIG. 5



FIG. 6