

US00PP23728P3

(12) **United States Plant Patent**
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(10) **Patent No.:** **US PP23,728 P3**
(45) **Date of Patent:** **Jul. 9, 2013**

- (54) **STEVIA PLANT NAMED ‘AKH L4’**
- (50) Latin Name: *Stevia rebaudiana* (Bert.) Bertoni
Varietal Denomination: **AKH L4**
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- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 158 days.
- (21) Appl. No.: **13/068,858**
- (22) Filed: **Jan. 18, 2011**
- (65) **Prior Publication Data**
US 2012/0090063 P1 Apr. 12, 2012
Related U.S. Application Data
- (60) Provisional application No. 61/336,505, filed on Jan. 22, 2010.

- (51) **Int. Cl.**
A01H 5/00 (2006.01)
- (52) **U.S. Cl.**
USPC **Plt./263.1**
- (58) **Field of Classification Search**
USPC Plt./373, 263.1
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of *stevia* plant named ‘AKH L4’, characterized by its combination of early harvest cycle, dark green leaves, medium number of nodes on the main stem, high number of basal buds, high Rebaudiosido A of total Glycoside Steviol content, and high yielding of dried leaves at harvest.

5 Drawing Sheets

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Genus and species: *Stevia rebaudiana* (Bert.) Bertoni.
Variety denomination: ‘AKH L4’.

STATEMENT REGARDING FEDERALLY
SPONSORED RESEARCH OR DEVELOPMENT

None

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct variety of *stevia* (*Stevia rebaudiana* (Bert.) Bertoni), which has been given the variety denomination of ‘AKH L4’.

The new *stevia* plant cultivar is a selection resulting from a controlled breeding program of *stevia* plants at Guayaibi, San Pedro, Paraguay in 2006 through the controlled pollination of seed parent ‘AKH/G.8.D.’ (unpatented) and pollen parent ‘Eirete’ (unpatented). The new cultivar was selected as a single plant within a population of plants resulting from this controlled pollination of *stevia* plants in 2006 at an experimental station at Guayaibi, San Pedro, Paraguay. Selection criteria was a combination of Rebaudioside A content equal to more than 50% of total steviol glycols, high yield of leaves per hectare, and resistance to leaf spot diseases. 91.5% of the Total Glycoside Steviols are present in the leaves of the claimed variety, with the remaining 8.5% of the Total Glycoside Steviols present in the stems and branches of the claimed variety. The selection was subsequently evaluated for a number of years at the Experimental Station of Pure Circle South America at Guayaibi, San Pedro, Paraguay.

Asexual reproduction of the new cultivar by cutting propagation since 2007 at Guayaibi, San Pedro, Paraguay in field nurseries has demonstrated that the new cultivar reproduces true to type with all of the characteristics, as herein described, firmly fixed and retained through successive generations of such asexual propagation.

The new variety can be compared to the seed parent ‘AKH/G.8.D.’ In Guayaibi, San Pedro, Paraguay the leaf shape of

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‘AKH L4’ is ovo-lanceolate whereas the leaf shape of ‘AKH/G.8.D.’ is oval. The percentage of Stevioside of ‘AKH L4’ is 3.6% whereas the percentage of Stevioside of ‘AKH/G.8.D.’ is 18%. The percentage of Rebaudioside A of ‘AKH L4’ is 9.9% whereas the percentage of Rebaudioside A of ‘AKH/G.8.D.’ is 0%.

SUMMARY OF THE INVENTION

The following characteristics of the new cultivar have been repeatedly observed and can be used to distinguish ‘AKH L4’ as a new and distinct cultivar of a *stevia* plant:

1. early harvest cycle
2. dark green leaf
3. medium number of nodes on main stem
4. many basal buds
5. Stevioside content 3.6%
6. Rebaudioside A content 9.9%
7. total of Stevioside+Rebaudioside A 13.5%
8. 73% Rebaudioside A of total Glycoside Steviol
9. Ranges from 5,500 to 6,000 kg/ha of dried leaves in four cuts

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs show, as nearly true as it is reasonably possible to make the same in color illustrations of this type, typical flower and foliage characteristics of the new cultivar. Colors in the photographs differ slightly from the color values cited in the detailed description, which accurately describes the colors of ‘AKH L4’.

FIG. 1 illustrates an ‘AKH L4’ plant from roots to top of the plant.

FIG. 2 illustrates ‘AKH L4’ leaves.

FIG. 3 illustrates an 'AKHL4' leaf, including the shape and dimensions.

FIG. 4 illustrates the branches, without leaves, of an 'AKH L4' plant.

FIG. 5 illustrates the flowers of an 'AKH L4' plant.

DETAILED BOTANICAL DESCRIPTION

The following is a detailed botanical description of a new and distinct variety of a *stevia* plant known as 'AKH L4'. Plant observations were made on plants grown in Guayaibi, San Pedro, Paraguay. Unless indicated otherwise, the descriptions disclosed herein are based upon observations made in February 2008 of mature 'AKH L4' plants (age 6 months) grown in outdoor field plantings with day temperature ranging from 25° C. to 35° C., night temperatures ranging from 22° C. to 30° C., and light levels ranging from 20 to 25 klux. 'AKH L4' has not been observed under all possible environmental conditions. Where dimensions, sizes, colors and other characteristics are given, it is to be understood that such characteristics are approximations or averages set forth as accurately as practicable. The phenotype of the variety may vary with variations in the environment such as season, temperature, light quality, light intensity, day length, cultural conditions and the like. Color notations are based on *The Royal Horticultural Society Colour Chart*, of The Royal Horticultural Society, London, 2007 edition.

Botanical classification: *Stevia rebaudiana* (Bert.) Bertoni cultivar AKH L4.

Parentage:

Parents.—Seed parent 'AKH/G.8.D.' (unpatented); pollen parent 'Eirete' (unpatented).

Plant:

Type.—Shrubby Perennial.

Growth habit.—Erect; Main stem with dominance of axillary buds and a good development of lateral branches from the axillary buds.

Height.—50 cm to 55 cm.

Number of nodes on main stem.—Between 21 to 30 nodes.

Number of basal buds.—11 to 15 basal buds per plant.

Harvest cycle.—Early.

Leaves:

Length.—4.48 cm.

Width.—1.7 cm.

Shape.—Ovo-lanceolate.

New foliage.—Green RHS 140B.

Mature foliage.—Green RHS 140A.

Upper surface mature foliage.—Green RHS 140A.

Lower surface mature foliage.—Green RHS 142A.

Veins.—Green RHS 142A.

Young shoots.—Green RHS 142B.

Mature shoots.—Yellow-Green RHS 144C.

Leaf edge.—Moderately sawn.

Stevioside content.—3.6%.

Rebaudioside A content.—9.9%.

% of rebaudioside A of total glycoside steviol.—73%.

Total of stevioside and rebaudioside A.—13.5%.

Flowers:

Petals.—White RHS 155C.

Bloom period.—Bloom dates (calculated from planting date): Start of Blooming 90 days; End of Blooming 120 days in Guayaibi, San Pedro, Paraguay.

Pedicel length.—2-3 mm.

Peduncle length.—1-3 mm.

Petiole length.—1.5-2 mm.

Number of flowers per capitulum.—Five.

Productivity.—Yielding of dried leaves in four cuts 5,5000 kg/ha to 6,000 kg/ha.

Cold hardiness.—Cold tolerance from 0° C.

Heat tolerance.—Heat tolerance to 45° C.

Pathogen resistance.—Moderately resistant to *Septoria steviae*.

Leaf harvest period.—Four harvests per year; August, November, February, and April in Guayaibi, San Pedro, Paraguay.

TABLE 1

Comparison with parents			
	AKH L4	AKH/G.8.D. (Seed Parent)	Eirete (Pollen Parent)
Plant: height	50 cm-55 cm	50 cm-55 cm	80 cm
Leaf: color	dark green	dark green	dark green
Leaf: shape	ovo-lanceolate	oval	lanceolate
Leaf: edge	moderately sawn	Scalloped	strongly sawn or notched
Stevioside content:	3.6%	18%	10.4%
Rebaudioside A content:	9.9%	0%	11.3%
Number of basal buds	11-15 buds per plant	11-15 buds per plant	6-10 buds per plant

What is claimed is:

1. A new and distinct cultivar of *stevia* plant named 'AKH L4', substantially as herein shown and described.

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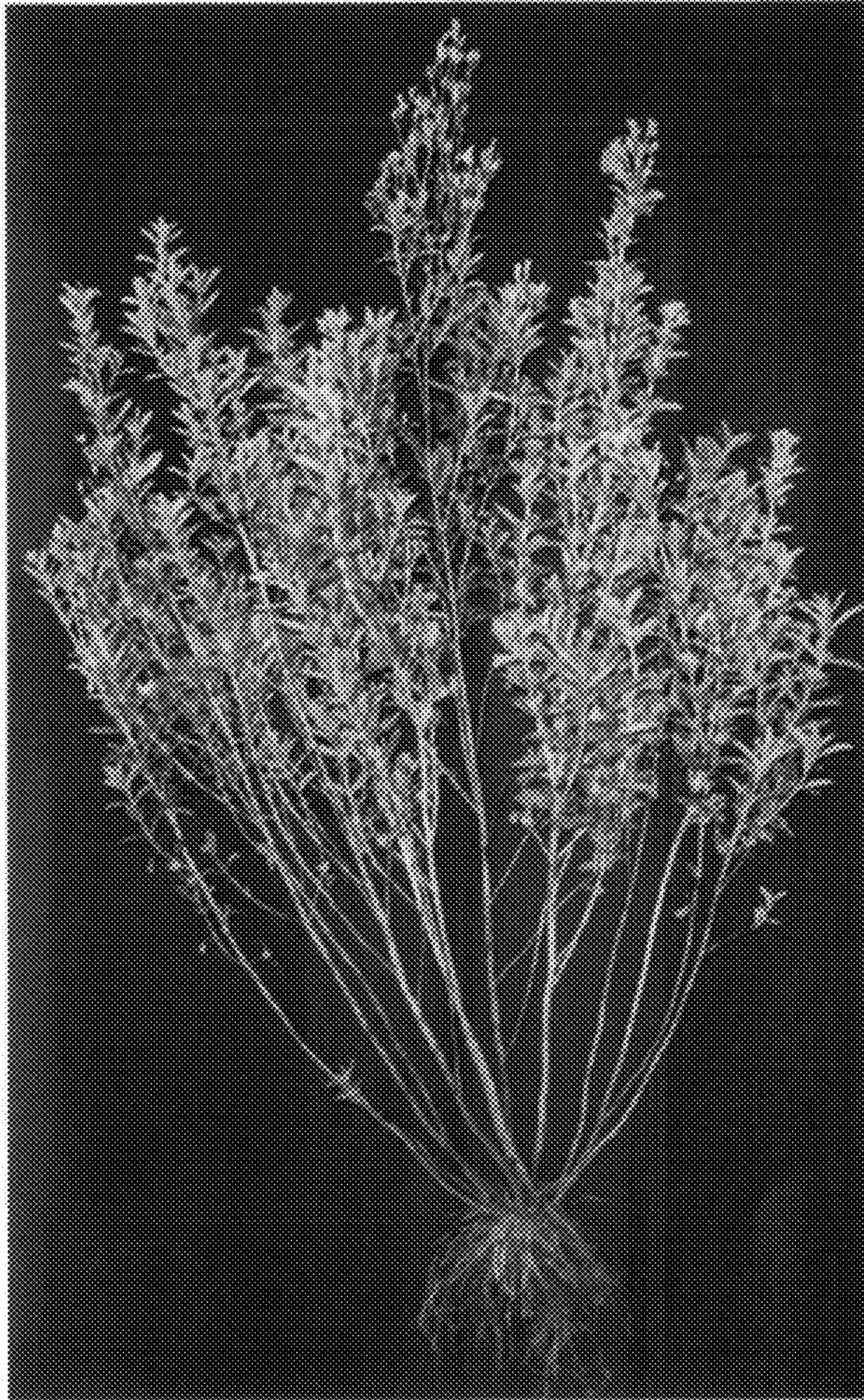


FIG. 1

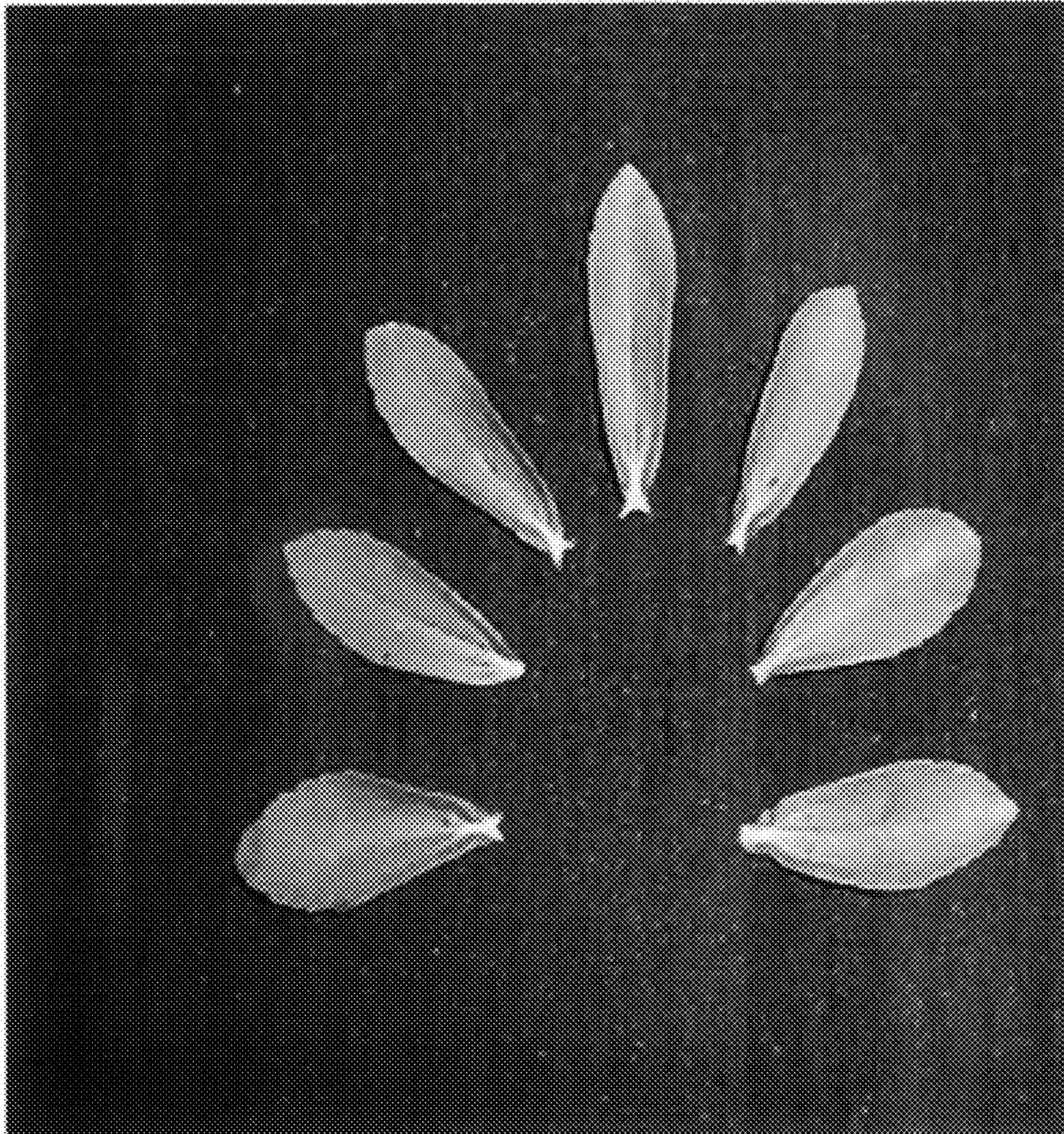


FIG. 2

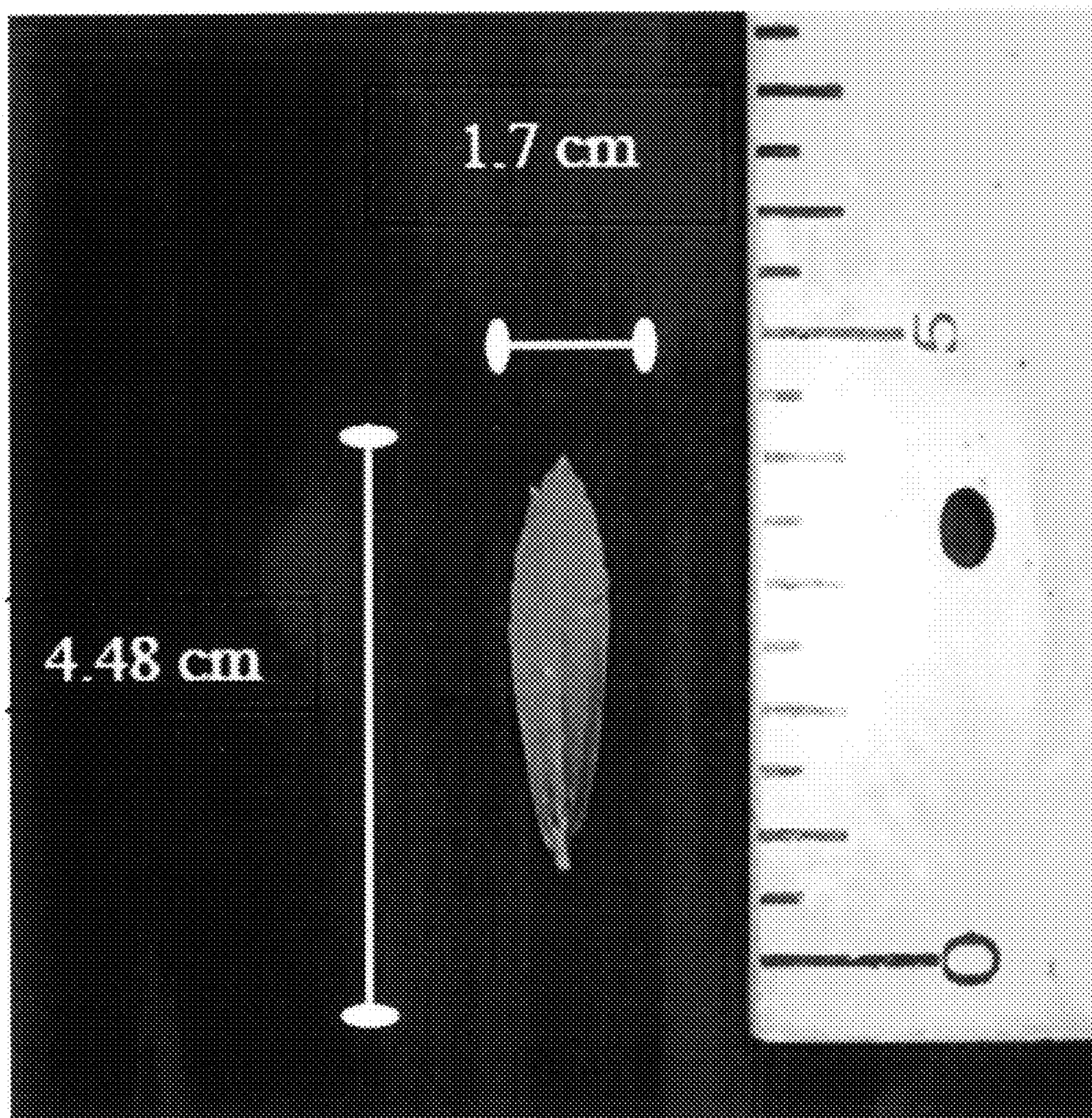


FIG. 3

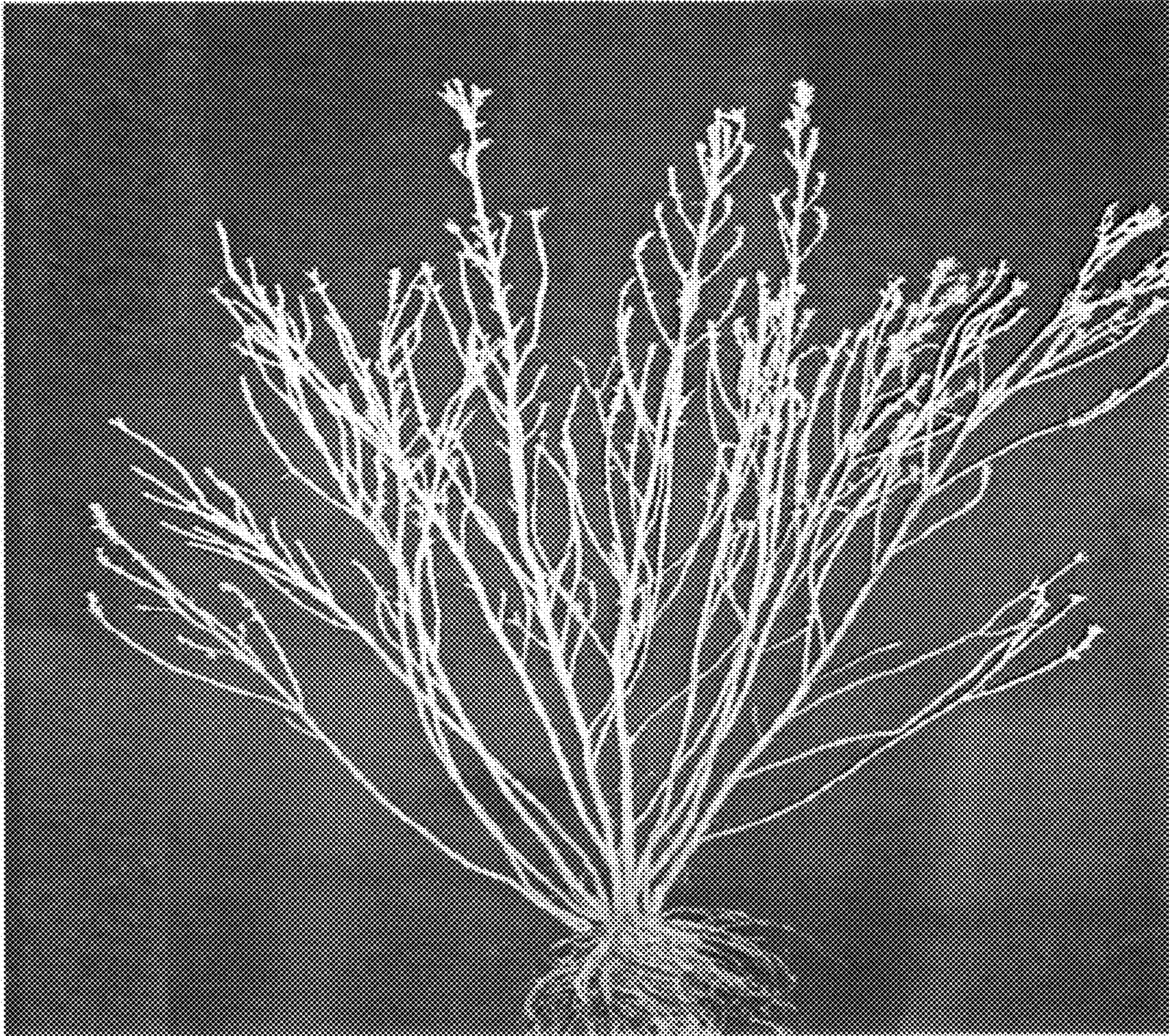


FIG. 4

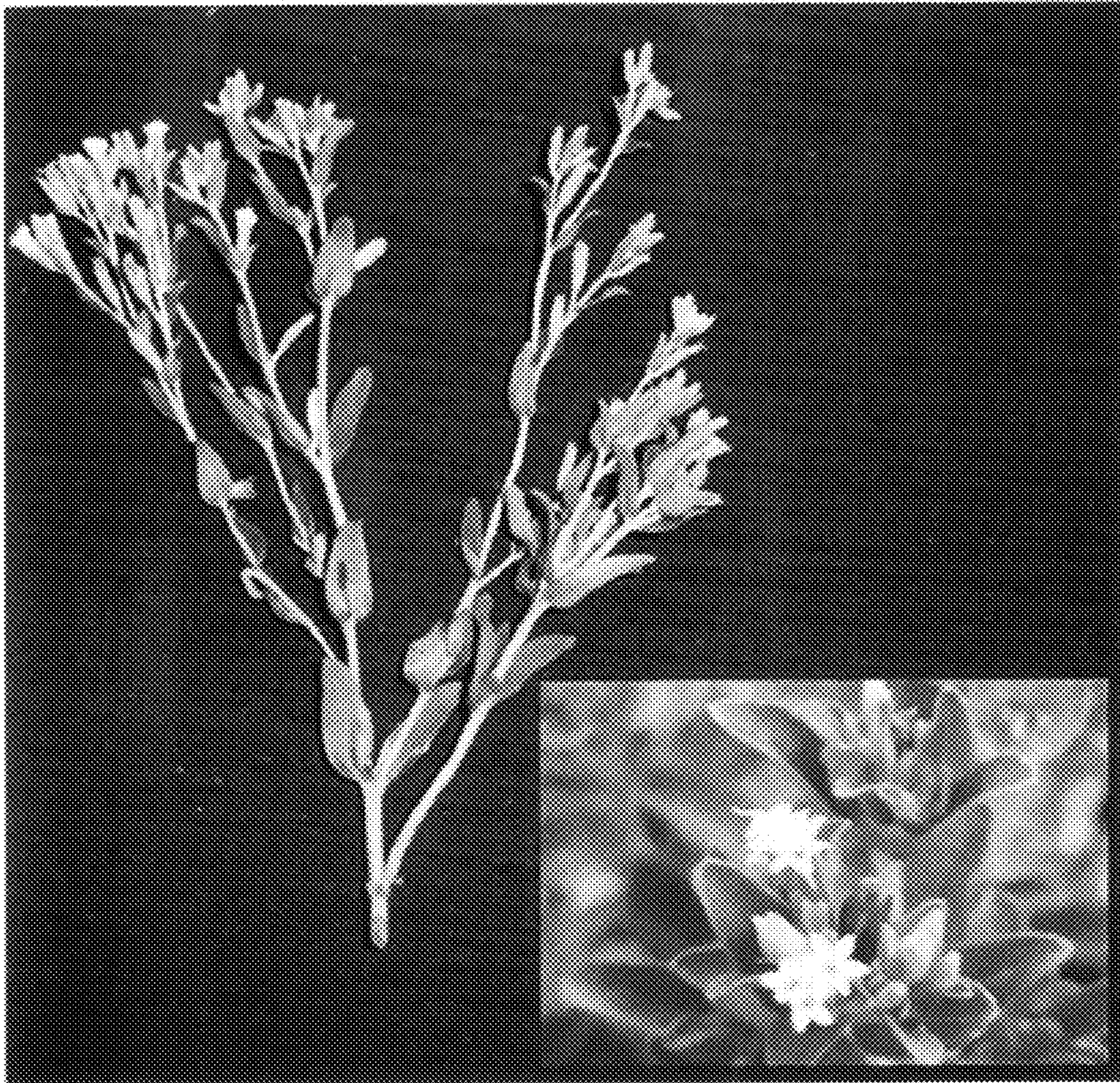


FIG. 5