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Álamo et al.

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(54) **BLUEBERRY PLANT NAMED 'CELESTE'**
(50) Latin Name: ***Vaccinium corymbosum*** L.
Varietal Denomination: **Celeste**

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**
A01H 5/00 (2006.01)

(52) **U.S. Cl.** **Plt./157**

(58) **Field of Classification Search** Plt./157
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP10,675	P *	11/1998	Lyrene	.....	Plt./157
PP10,788	P *	2/1999	Lyrene	.....	Plt./157
PP11,033	P *	8/1999	Lyrene	.....	Plt./157
PP11,807	P2 *	3/2001	Lyrene	.....	Plt./157
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UPOV ROM GTITM Computer Database, GTI Jouve Retrieval Software 2009/03 Citations for 'Celeste'.*

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(57) **ABSTRACT**

A new and distinct Blueberry cultivar is provided that is the product of a controlled breeding program followed by selection. The cultivar flowers and fruits at mid-season. Attractive light blue berries are formed which exhibit an excellent aromatic sweet flavor and a very good post-harvest shelf life. The plant is self-fertile, and displays a very vigorous vase-shaped growth habit with evergreen foliage. No cross pollination is required. A low chilling requirement also is exhibited. No special sensitivity to common blueberry diseases has been encountered during observations to date. The new cultivar has proven to be adaptable to growing in different soil types.

3 Drawing Sheets

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Botanical/commercial classification: *Vaccinium corymbosum* L./Blueberry Plant.

Varietal denomination: cv. Celeste.

SUMMARY OF THE INVENTION

The new Blueberry cultivar of the present invention was the product of controlled artificial pollination carried out in a greenhouse at Greenwood, Fla., U.S.A., wherein two parents were crossed which previously had been studied in the hope that they would contribute the desired characteristics. The female parent (i.e., the seed parent) was the unreleased 'FL 97-24' cultivar (non-patented in the United States). The male parent (i.e., pollen parent) was the 'Jewel' cultivar (U.S. Plant Pat. No. 11,807). The parentage of the new cultivar can be summarized as follows:

'FL 97-24'×'Jewel'

The seeds resulting from the pollination were shipped to Almonte, Huelva, Spain, where they sown during approximately 1998, small plants were obtained which were physically and biologically different from each other and selective research of the progeny was carried out. Selective study during spring 2002 resulted in the identification of a single plant of the new cultivar. Initially the plant was designated S02-04-01.

It was found that the new Blueberry plant of the present invention displays the following combination of characteristics:

(a) flowers and fruits at mid-season,
(b) displays a generally very vigorous vase-shaped growth habit with evergreen foliage,

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(c) is self-fertile,
(d) displays a low chilling requirement, and
(e) forms in abundance attractive light blue berries that exhibit an excellent aromatic sweet flavor and a very good post-harvest shelf life.

The new cultivar well meets the needs of the horticultural industry and can be grown to advantage for the commercial production of blueberries. The new cultivar has proven to be well adaptable to different types of soils. Fruit is produced at mid-season and at a time similar to that of the 'Star' cultivar (U.S. Plant Pat. No. 10,675).

The new cultivar of the present invention can be distinguished from its ancestors and all other Blueberry cultivars known to its originators. When compared to the 'Jewel' cultivar it displays a larger more vigorous growth habit. When compared to the 'O'Neal' cultivar (non-patented in the United States), the 'O'Neal' cultivar is partially defoliated during the winter, displays a longer chill requirement, and forms darker blue fruit unlike the new cultivar. When compared to the 'Bluecrisp' cultivar (U.S. Plant Pat. No. 11,033, the 'Bluecrisp' cultivar tends to be more susceptible to Rust, and the foliage tends to turn somewhat red during the winter. When compared to the 'Santa Fe' cultivar (U.S. Plant Pat. No. 10,788), the 'Santa Fe' cultivar requires a considerably longer chill requirement. When compared to the 'Biloxi' cultivar (non-patented in the United States), the 'Biloxi' cultivar tends to be more susceptible to Stem Blight. When compared to the 'Misty' cultivar (non-patented in the United States), the 'Misty' cultivar tends to be more susceptible to aphids.

The new cultivar was first asexually reproduced by the rooting of softwood cuttings during the summer of 2002 at Almonte, Huelva, Spain. Such asexual propagation has shown that the characteristics of the new cultivar are firmly fixed and are stably transmitted from one generation to another. Accordingly, the new cultivar asexually reproduces in a true-to-type manner.

The new cultivar has been named 'Celeste'.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs show in color as nearly true as it is reasonably possible to make the same in color illustrations of this character, typical plants and plant parts of the new cultivar. The plants had been asexually reproduced by the rooting of cuttings, and were being grown outdoors at Almonte, Huelva, Spain.

FIG. **1** shows a typical upright flowering plant of the new cultivar. The upper (adaxial) leaf surfaces are shown.

FIG. **2** shows a cluster of primarily mature berries of the new cultivar.

FIG. **3** shows a close view of the under (abaxial) surfaces of typical leaves of the new cultivar.

FIG. **4** shows a close view of the proximal surfaces of typical mature berries of the new cultivar where a substantial light blue bloom is apparent.

FIG. **5** shows a close view of the mature berries of the new cultivar together with a basis for size comparison.

DETAILED DESCRIPTION

The chart used in the identification of the colors described herein is the R.H.S. Colour Chart of The Royal Horticultural Society, London, England. Ordinary color terms are to be accorded their customary dictionary significance. The description is based on the observation while growing outdoors at Almonte, Huelva, Spain, of approximately five-year-old plants of the new cultivar which had been asexually reproduced by the rooting of cuttings.

Plant:

Growth habit.—Generally vase-shaped and upright.
Height.—Approximately 1.65 m at 5 years of age.
Width.—Approximately 2.8 m at 5 years of age.
Foliage retention.—Evergreen, with leaves being retained during the winter at Almonte, Huelva, Spain.
Chill requirement.—Less than 300 hours.

Foliage:

Shape.—Generally elliptic.
Length.—Commonly approximately 7.1 cm on average.
Width.—Commonly approximately 3.4 cm on average.
Apex.—Acuminate.
Base.—Acute.
Margin.—Entire.
Texture.—Glabrous and non-glandular.
Color.—Green Group 137B on the upper (adaxial) surface, and Green Group 138B on the under (abaxial) surface.

Flowers:

Time.—Mid-season at Almonte, Huelva, Spain, with first flower commonly at approximately January 15th, and at 50 percent bloom at approximately February 25th.
Number.—Commonly approximately 6 flowers per bud on average.
Petals.—5 in number and fused into a corolla tube.
Fertility.—Self-fertile, cross pollination is not required.
Fragrance.—None.

Fruit:

Time.—Commonly from approximately April 15th to June 15th at Almonte, Huelva, Spain (i.e., approximately 60 days).
Shape.—Generally slightly flattened and round.
Height.—Commonly approximately 14 mm on average.
Width.—Commonly approximately 18 mm on average.
Weight.—Approximately 2.5 g/berry on average during 2007 when plants were 4 years of age.
Fruit scar.—Approximately 1.7 mm in size on average.
Fruit scar characteristics.—Commonly dry and deep.
Seed number.—Commonly approximately 20 per berry on average.
Seed size.—Commonly approximately 1.7 mm in length on average and approximately 1.3 mm in width on average.
Immature color.—Commonly near Green Group 130D with bloom and Yellow-Green Group 145A without bloom.
Mature color.—Light blue, Violet-Blue Group 97B with bloom and Black Group 202A without bloom.
Productivity.—Very abundant, approximately 3.7 Kg/plant on average during 2007 when plants were 4 years of age.
Flavor.—Excellent aromatic sweet flavor.

Development:

Ability to store.—When stored at 20° C., approximately 91 percent of the harvest commonly is good 7 days after harvest, and when stored at 8° C., approximately 93 percent of the harvest commonly is of good quality 7 days after harvest.
Disease tolerance.—No special sensitivity to common Blueberry diseases, such as Leaf Rust (*Pucciniastrum vacinii*), Stem Blight, and *Botrytis* Blight (*Botrytis cinerea*) has been encountered during observations to date at Almonte, Huelva, Spain. During observations to date the new cultivar has proven to be less susceptible to Rust than the 'Bluecrisp' cultivar, and less susceptible to Stem Blight then the 'Biloxi' cultivar.
Insects.—Is susceptible to Aphids and Thrips. During observations to date the new cultivar has proven to be less susceptible to Aphids than the 'Misty' cultivar.
Cultural conditions.—Is well adaptable to different types of soils during observations to date.

Plants of the 'Celeste' cultivar have not been observed under all possible environmental conditions to date, Accordingly, it is possible that the phenotypic expression may vary somewhat with changes in light intensity and duration, cultural practices, and other environmental conditions without variance in the genotype.

We claim:

1. A new and distinct Blueberry plant that possess the following combination of characteristics:
(a) flowers and fruits at mid-season,
(b) displays a generally very vigorous vase-shaped growth habit with evergreen foliage,
(c) is self-fertile,
(d) displays a low chilling requirement, and
(e) forms in abundance attractive light blue berries that exhibit an excellent aromatic sweet flavor and a very good post-harvest shelf life;
substantially as herein shown and described.

* * * * *

FIG. 1

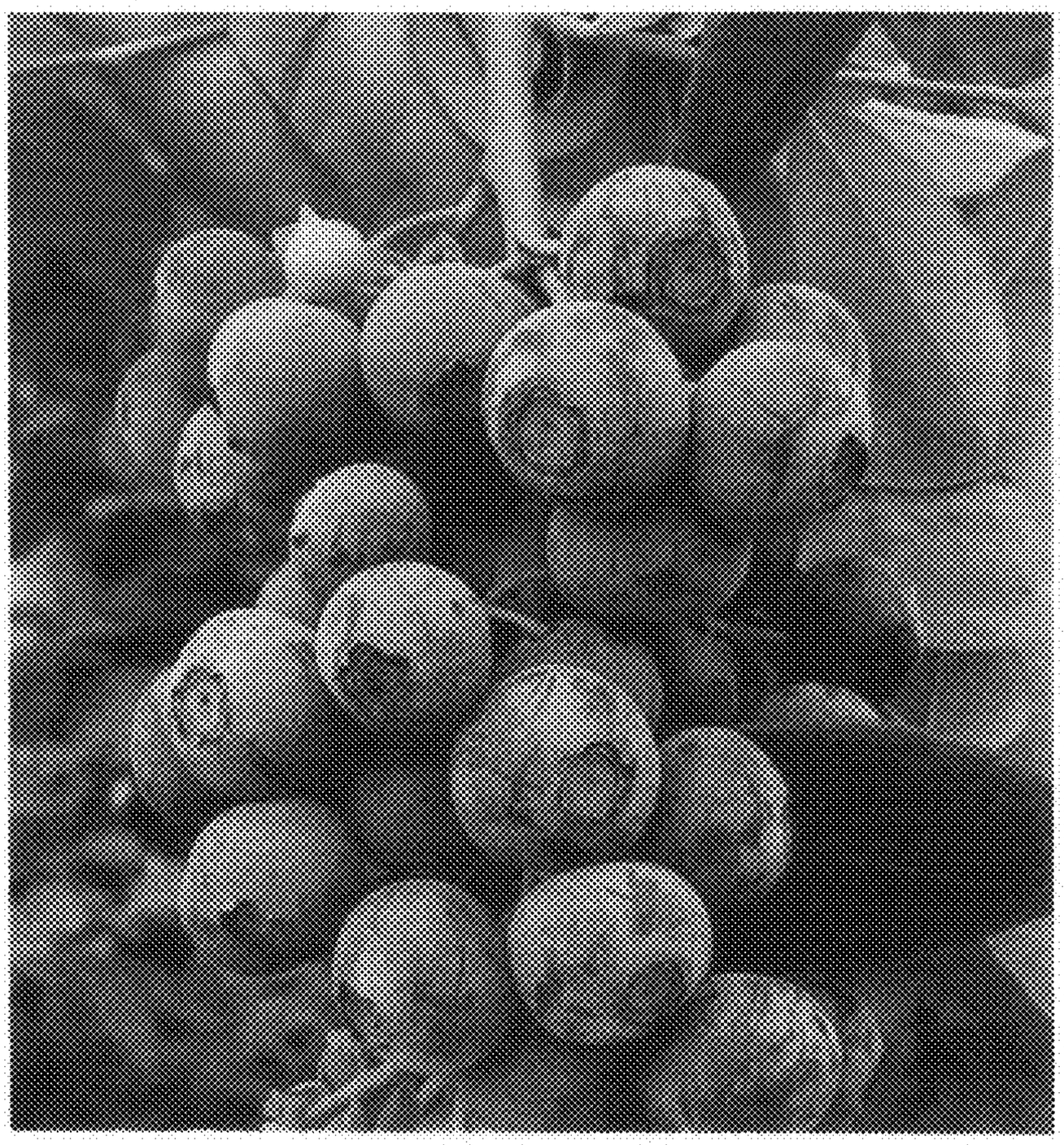

FIG. 2

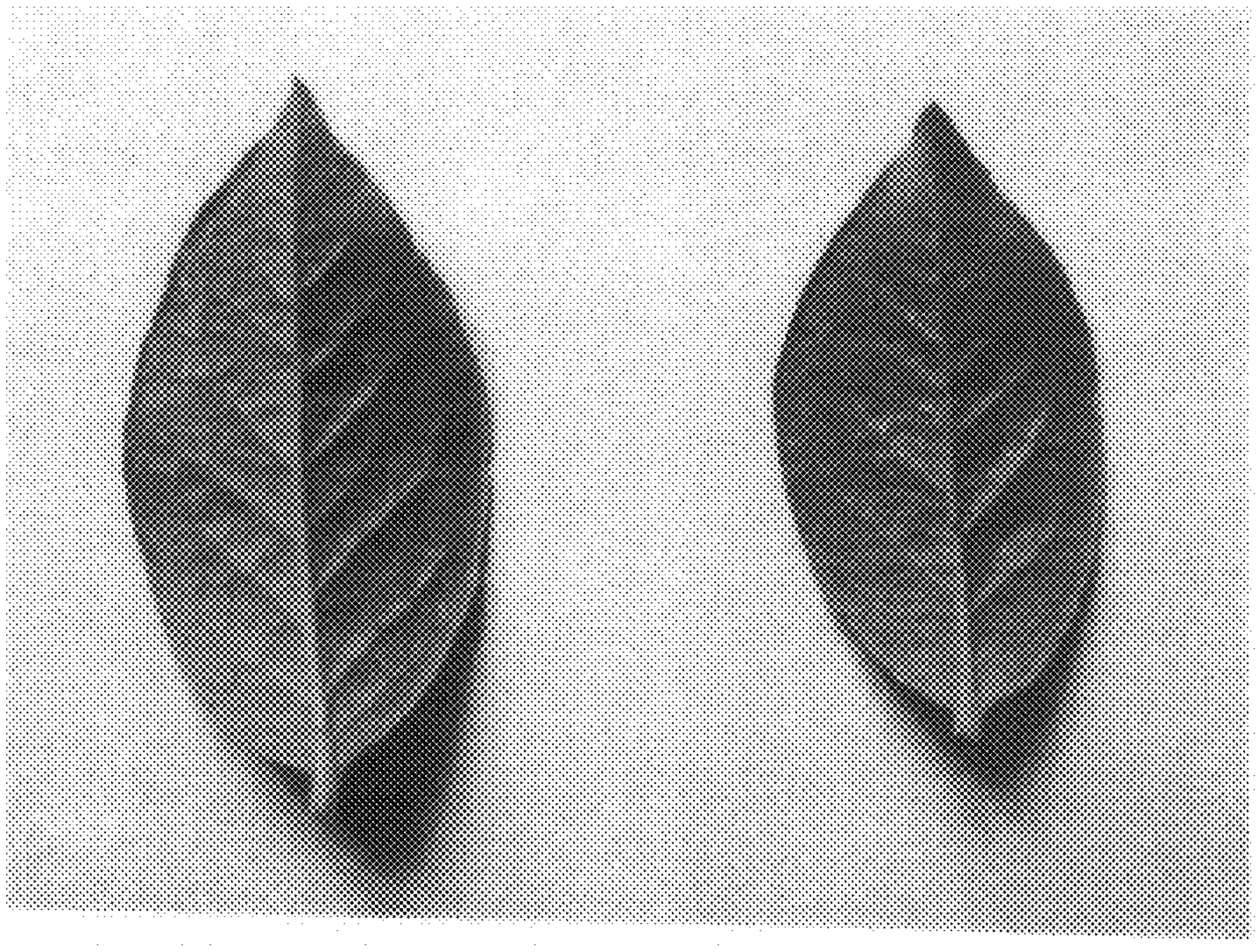

FIG. 3

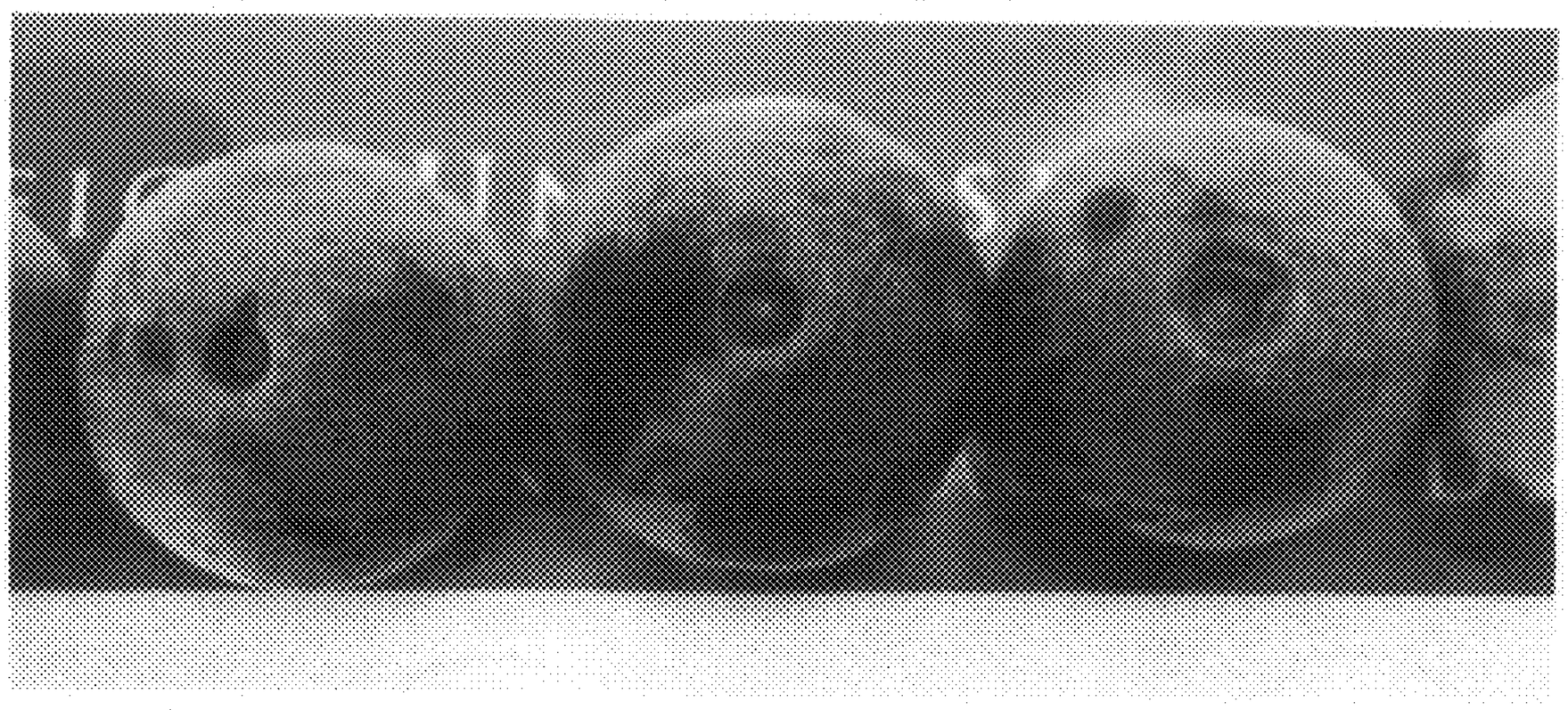

FIG. 4

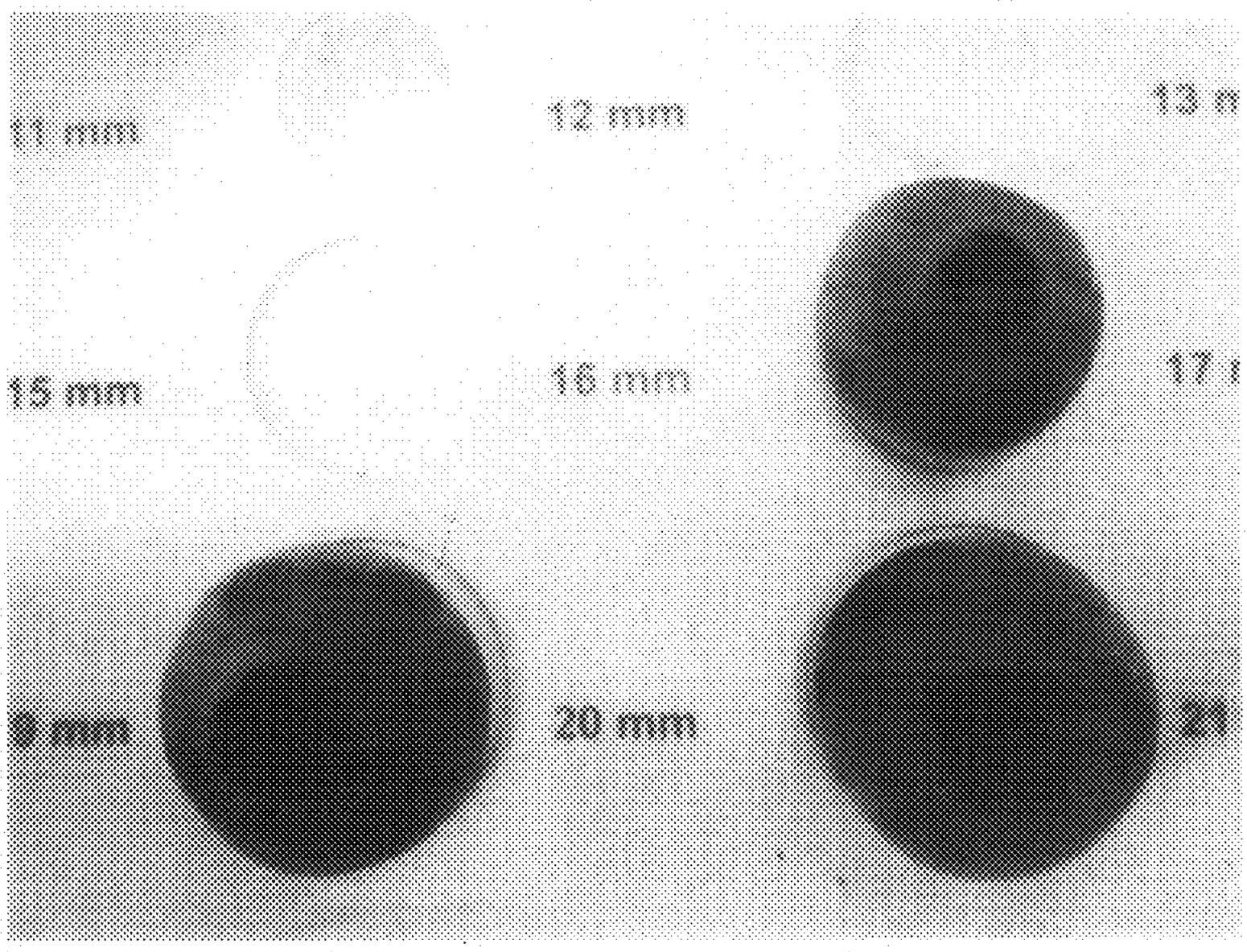

FIG. 5