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(12) **United States Plant Patent**
Schoone

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(54) ***PHALAENOPSIS* ORCHID PLANT NAMED 'MYSTERY'**

(50) Latin Name: ***Phalaenopsis*** hybrid
Varietal Denomination: **Mystery**

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(72) Inventor: **René Schoone**, Assendelft (NL)

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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 118 days.

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Related U.S. Application Data

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(30) **Foreign Application Priority Data**

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(52) **U.S. Cl.**
CPC ***A01H 5/02*** (2013.01)
USPC **Plt./311**

(58) **Field of Classification Search**
USPC Plt./311
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP12,177	P2 *	10/2001	Rabin	Plt./311
PP13,088	P2 *	10/2002	Glancy	Plt./311
PP14,329	P2 *	12/2003	Plate	Plt./311
PP22,090	P3 *	8/2011	Pen-chih	Plt./311

* cited by examiner

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(57) **ABSTRACT**

A new and distinct *Phalaenopsis* plant named 'Mystery' particularly characterized by flowers which are white with purple spots and a purple haze; the labellum is white with some yellow and purple; plants which may be propagated economically and uniformly using tissue culture; plants which produce more than one inflorescence; long and sturdy inflorescences; and relatively short, dark-green foliage.

3 Drawing Sheets

Latin name of the genus and species of the plant claimed: *Phalaenopsis* hybrid.

Variety denomination: 'Mystery'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Phalaenopsis* plant, botanically known as *Phalaenopsis* of the Orchidaceae family, and hereinafter referred to by the cultivar name 'Mystery'.

Phalaenopsis comprises a genus of about 55 species of herbaceous perennials many of which, or the hybrids thereof, are suitable for cultivation in the home or greenhouse. *Phalaenopsis* is predominantly epiphytic or rock-dwelling, and is native to tropical Asia, the Malay Archipelago, and Oceania. The species typically has 2-ranked, fleshy, oblong or elliptic leaves affixed to a short central stem (monopodial growth), which vary in size from 5 to 8 inches to over 2 feet. The leaves may be entirely green or mottled with silver grey.

Phalaenopsis orchids, often referred to as 'Moth Orchids' in the horticultural trade, are frequently used to furnish cut flowers for the florist trade or sold as flowering potted-plants for home or interiorscape.

Phalaenopsis produces upright or pendent lateral racemes, often with many showy flowers which open in succession beginning with the lowermost. The flowers possess three sepals and three petals; the lateral ones being alike. The

lowermost petal, called the labellum, is three-lobed and is often more brightly-colored than the other flower segments. Flower colors include various shades of pink, white, yellow and red-brown.

Phalaenopsis orchids are typically propagated from seeds. Asexual propagation of *Phalaenopsis* is often done from off-shoots which frequently arise from the lower bracts of the inflorescence. The resulting plants are detached from the mother plant and may be planted in a suitable substrate.

The new *Phalaenopsis* 'Mystery' is a product of a controlled breeding program conducted by the inventor, Rene Schoone, in Strengweg, Heemskerk, The Netherlands. The objective of the breeding program was to develop a new *Phalaenopsis* cultivar particularly characterized by its attractive and unique colored flowers, economical propagation via tissue culture, rapid growth, and a plant dimension suitable for packaging and shipping to the market.

The new *Phalaenopsis* 'Mystery' originated from a cross made by the inventor in 1999 in Strengweg, Heemskerk, The Netherlands. The female or seed parent is the *Phalaenopsis* cultivar designated 'Chan Xen Pearl', unpatented. The male or pollen parent is the *Phalaenopsis* cultivar designated 'New Candy', unpatented. The new *Phalaenopsis* 'Mystery' was discovered and selected by the inventor as a single flowering plant within the progeny of the stated cross in a controlled environment in 2006 in Strengweg, Heemskerk, The Netherlands.

Asexual reproduction of the new *Phalaenopsis* cultivar by tissue culture was first performed in July, 2007 in Cieweg 13, Heemskerk, The Netherlands, and has demonstrated that the combination of characteristics as herein disclosed for the new cultivar are firmly fixed and retained through successive generations of asexual reproduction. The new cultivar asexually reproduces true-to-type.

BRIEF DESCRIPTION OF THE INVENTION

The following traits have been repeatedly observed and are determined to be unique characteristics of 'Mystery', which in combination distinguish this *Phalaenopsis* as a new and distinct cultivar:

1. flowers which are white with purple spots and a purple haze; the labellum is white with some yellow and purple;
2. plant produces more than one inflorescence;
3. plants may be propagated economically and uniformly using tissue culture;
4. inflorescences are long and sturdy; and
5. relatively short, dark-green foliage.

In comparison with the parental cultivars of 'Mystery', the female parent 'Chan Xen Pearl' is white with light purple and dark purple marks and a red and yellow labellum. The male parent 'New Candy' has white colored flowers (mainly the petals) with dark purple marks and a yellow labellum with purple spots, whereas the flowers of 'Mystery' are white with purple spots, at the base a purple haze. The labellum is white with yellow and red/purple spots.

Presently, the commercial cultivar to which 'Mystery' can be meaningfully compared is 'Cupid Spirit' (U.S. patent application Ser. No. 13/998,021). The flowers of 'Cupid Spirit' are white with a purple mark at the base and purple spots close to the edges. The labellum is white with yellow. The flowers of 'Mystery' are white with purple spots and a purple haze at the base. The labellum is white, yellow with red/purple spots. Additionally, the shape of the petals of 'Cupid Spirit' is broadly ovate, whereas the shape of the petals of 'Mystery' is slightly triangular. Finally, the flowers of 'Mystery' are larger than the flowers of 'Cupid Spirit'.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new *Phalaenopsis* 'Mystery' showing the colors as true as is reasonably possible with colored reproductions of this type. Colors in the photographs may differ slightly from the color values cited in the detailed botanical description, which accurately describe the color of 'Mystery'.

FIG. **1** shows a side view perspective of a typical flowering plant of 'Mystery' in a 12 cm pot, at 16 months of age.

FIG. **2** shows a close-up view of a typical flower of 'Mystery'.

FIG. **3** shows a close-up view of the typical leaves of 'Mystery'.

DETAILED BOTANICAL DESCRIPTION

The new *Phalaenopsis* cultivar 'Mystery' has not been observed under all possible environmental conditions. The phenotype of the new cultivar may vary with variations in environment such as temperature, light intensity, and day length without any change in the genotype of the plant.

The aforementioned photographs, together with the following observations, measurements and values describe plants of 'Mystery' as grown in a greenhouse in Strengweg, Heemskerk, The Netherlands, under conditions which closely approximate those generally used in commercial practice. Initially, the ideal temperature to grow plants of 'Mystery' is 27° C. during the day and at night. Then, during the flowering phase of 'Mystery', the ideal growing temperature is 20-22° C. during the day and 18° C. at night. Light levels for growing 'Mystery' are a minimum of 5,000 lux and a maximum of 10,000 lux. A balanced fertilizer with level of 200 ppm N, 87 ppm P, 168 ppm K is applied. Duration of growth of 'Mystery' from potting size is between 10 and 14 months.

Color references are made to The Royal Horticultural Society Colour Chart (R.H.S.), 2007 edition, except where general colors of ordinary significance are used. Color values were taken under daylight conditions at approximately noon in Zaandammerweg, Assendelft, The Netherlands. The age of the 'Mystery' plants described is 12 months after potting.

Classification:

Botanical.—Phalaenopsis hybrid.

Parentage:

Female or seed parent.—Phalaenopsis cultivar designated 'Chan Xen Pearl', unpatented.

Male or pollen parent.—Phalaenopsis cultivar designated 'New Candy', unpatented.

Propagation:

Type.—Tissue culture.

Rooting habit and description.—Fleshy; approximately 4 mm-9 mm wide and green (RHS 147B) in color; freely branching. It takes 12 weeks for plants growing in tissue culture to initiate roots.

Plant:

Size at maturity.—Height (from bottom of pot to highest flower): about 60 to 65 cm. Spread: about 45 to 52 cm.

Growth habit.—Standard; green (RHS N137A) leaves and a relatively normal raceme.

Vigor.—Moderate.

Crop time.—Following asexual propagation, at about 26 weeks 2 leaves appear; at about 30 weeks 3-4 leaves appear; after a cold treatment of about 4-8 weeks at a temperature of about 19° C. about 2 racemes with flowers appear.

Foliage:

Quantity per plant.—About 5 to 8 leaves are produced before flowering.

Arrangement and attachment.—Half up/horizontal and on two sides.

Overall shape of leaf.—Oval, the tip is blunt and asymmetric.

Texture (*both surfaces*).—Smooth and leathery.

Pubescence.—None.

Leaf base.—Acute.

Margin.—Entire.

Mature leaf length.—About 15 to 25 cm.

Mature leaf width.—About 7 and 10 cm.

Mature leaf thickness.—About 1.5 cm.

Mature leaf color (*upper surface*).—Green (RHS N137A).

Mature leaf color (*under surface*).—Green (RHS N137D).

Venation.—Pattern: parallel. Color of midvein: upper surface: green (RHS 139A). Under surface: green (RHS 137D).

Raceme:

Quantity per plant.—About 1 to 2.

Number of flowers per raceme.—About 8 to 15.

Length.—About 55 cm and 75 cm.
Diameter.—About 5 mm.
Strength.—Strong.
Aspect.—Upright.
Texture.—Glabrous and smooth.
Color.—Dark green/grey (RHS N189A).
Internode.—Length: about 30 to 45 cm.

Inflorescence description:

Appearance.—upright to slightly pendant, racemose inflorescence with bilaterally symmetrical flowers that open in succession beginning with the lowermost flower.
Buds.—Height (from base to tip): about 15 to 25 mm. Diameter (at midpoint): about 10 to 20 mm. Shape: oval/egg-shaped. Color: yellow/green (RHS 144B) and red/purple (RHS 71A).
Flowering time.—For an untreated plant (flowering plant that has not undergone cold- treatment where the plant grows at a temperature of 18° C. to 19° C. for about 4 to 8 weeks after a period of about 30 weeks at a temperature of 25° C.), 2 racemes appear with about 16 to 20 flower buds and flowers per inflorescence. First flowers can be expected approximately 4 to 6 months after planting a plant with a leaf diameter of 3 to 5 cm. Flowers persistent.
Flowering longevity.—On the plant: about 4 to 6 months; lastingness of cut flowers: has not been observed.
Fragrance.—No fragrance.
Flower.—Rate of opening: Flowers fully opened about 2 to 3 days after petal and sepal separation. Orientation at opening: slanted upward and outward. Shape: Typical shape of Phalaenopsis orchid; see FIG. **2**. Size (of single bloom): Height: about 75 mm. Diameter: about 82 mm. Depth of tube: about 11 mm.
Petals.—Quantity and arrangement: three petals and three sepals that are trimerous, overlapping and arranged in 2 whorls. Petals are more pronounced than sepals. Arrangement: Inner whorl comprises 3 petals: 2 lateral petals and labellum. 2 lateral petals: Overall shape: broadly ovate, little triangular and weakly cupped. Apex: oval. Margin: entire and weakly undulate. Base: broadly ovate. Length: about 40 to 45 mm. Width: about 35 to 40 mm. Texture: Upper surface: smooth and satiny. Under surface: smooth and satiny. Color (when fully opened): Main color upper surface is white (RHS NN155C) with purple spots (RHS N79C) and at the base a purple haze (RHS N78C). Main color under surface is white (RHS NN155C) with purple/violet marks (RHS N81A & N81C). Labellum: Overall shape: 3-lobed with 2 prominent callosities at central junction of the lateral lobes and base of the midlobe. Lateral lobes of labellum fold upward about the column; the midlobe extends forward and is terminated by 2 filiform appendages at the apex. Lateral lobes of the labellum are ovate in shape while the midlobe is triangular with a bump and a rib on it. Margin: entire and weakly undulate. Apex: oval. Length: about 22 mm. Width (not flattened): about 18 mm. Texture: Upper & under surface: smooth and satiny. Color (when fully opened): Main color is white (RHS NN155C). At the base of the mid lobe yellow (RHS 13B) with red/purple spots and edges (RHS 72A). At the base of the lateral lobes a purple mark (RHS N79B). lower edges are yellow (RHS 13A) with a little purple (RHS 72A). Lower side is same as upper side only less yellow and more white. Cirrhi: long. Color: white (RHS NN155C). Pestle (callosities): Length: about 5 mm. Width (not flattened): about 7 mm. Height: about 8 mm. Color: White (RHS NN155C) with purple edges and purple on the inside (RHS N79A).
Sepals.—Arrangement: Outer whorl comprises 3 sepals. Overall shape: elliptical and weakly cupped. Length: about 40 mm. Width: about 25 mm. Margin: entire and weakly undulate. Apex: oval, little pointy. Texture: Upper & under surface: smooth and satiny. Color (when fully opened): Upper surface: Main color is white (RHS NN155C) with purple spots (RHS N79C) and a purple haze at the base (RHS N78D). Under surface: Main color is white (RHS NN155C) with purple marks (RHS N81A & N81C).
Pedicel.—Length: about 30 to 45 mm. Diameter: about 4 mm. Texture: glabrous and smooth. Color: yellow/green (RHS N144D) and purple (RHS N79A).

Reproductive organs:

Arrangement.—The stamens, style and stigmas are fused into a single, short structure called the column, possessing one terminal anther with pollen grains united into a pollinia, which are covered by an anther cap. The stigma is located under the column behind the pollinia. The ovary is inferior with three carpels present. The plant has not produced seed.
Column.—Length: about 15 mm. Diameter: about 6 mm. Color: white (RHS NN155C) with a purple belt (RHS N78B).
Pollinia.—Quantity: Two. Size: about 1 mm. Color: orange (RHS 25A).
Ovary.—Length: about 5 mm. Diameter: about 6 mm. Color: white (RHS NN155C and purple (RHS N78B).

Disease/pest resistance/susceptibility: No specific resistance or susceptibility observed.

Temperature tolerance: Tolerant to a low temperature of about 15° C. and to a high temperature about 30° C.

What is claimed is:

1. A new and distinct *Phalaenopsis* plant named 'Mystery', as illustrated and described herein.

* * * * *

FIG. 1

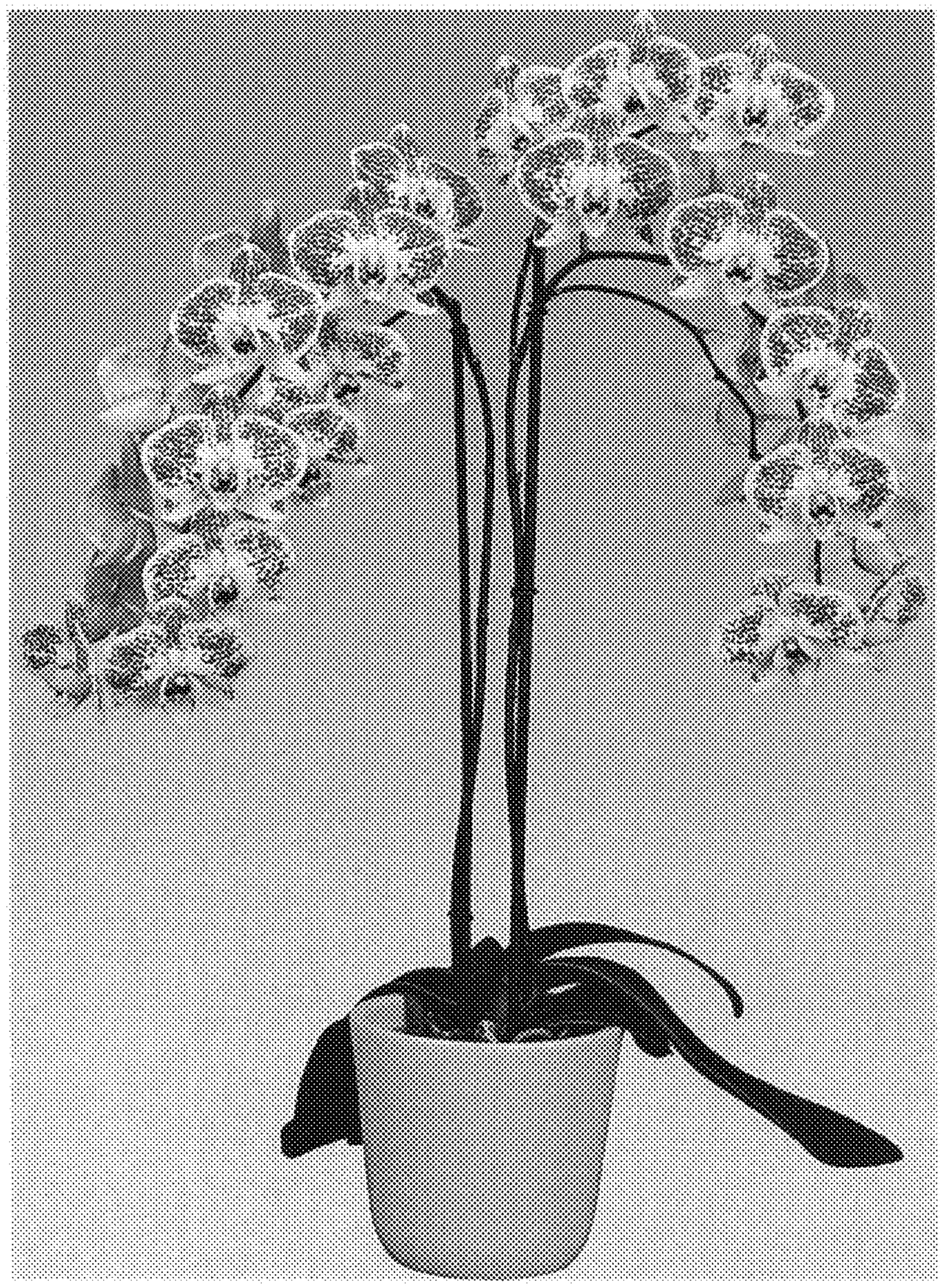

FIG. 2

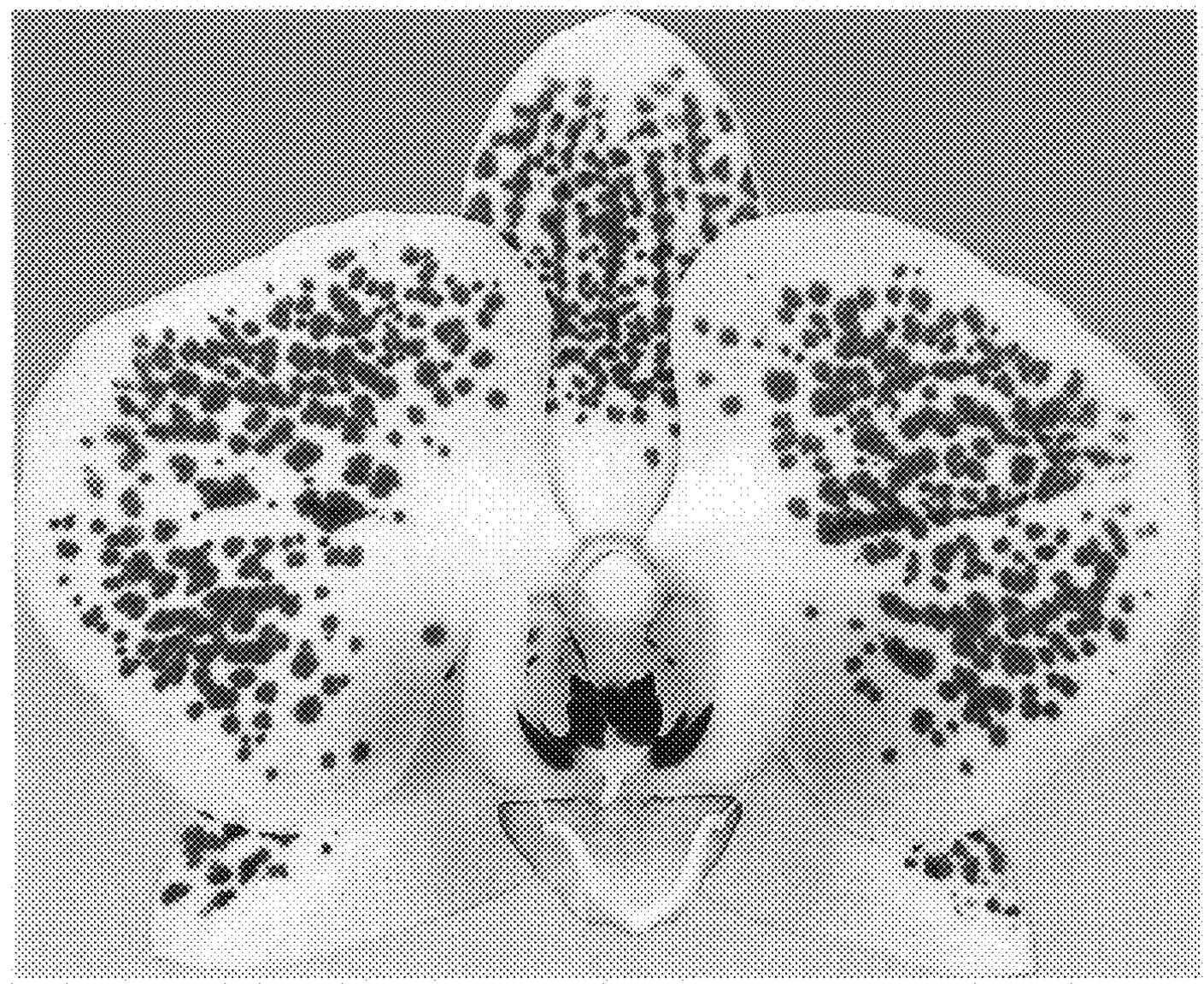

FIG. 3