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# (12) United States Plant Patent Schoone

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# (54) *PHALAENOPSIS* ORCHID PLANT NAMED 'GRAZIA'

(50) Latin Name: *Phalaenopsis hybrida*Varietal Denomination: **Grazia** 

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#### Related U.S. Application Data

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### (30) Foreign Application Priority Data

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#### (57) ABSTRACT

A new and distinct *Phalaenopsis* plant named 'Grazia' particularly characterized by flowers which are mainly yellow/ orange with some red/purple and a purple labellum; 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

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

Variety denomination: 'Grazia'.

## 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 'Grazia'.

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

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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* 'Grazia' is a product of a controlled breeding program conducted by the inventor, René 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* 'Grazia' 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 'Tying Shin Dorothy', unpatented. The male or pollen parent is the *Phalaenopsis* cultivar designated 'Fusheng's Glad Lip', unpatented. The new *Phalaenopsis* 'Grazia' was discovered and selected by the inventor as a single flowering plant within the progeny of the stated cross in a controlled environment in 2007 in Strengweg, Heemskerk, The Netherlands.

Asexual reproduction of the new *Phalaenopsis* cultivar by tissue culture was first performed in November, 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 reproduces true to type.

#### BRIEF DESCRIPTION OF THE INVENTION

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

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- 1. flowers which are mainly yellow/orange with some red/ purple and a purple labellum;
- 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 'Grazia', the female parent 'Tying Shin Dorothy' has bronze colored flowers and the male parent 'Fusheng's Glad Lip' has yellow colored flowers with a red lip, whereas the flowers of 'Grazia' are red/purple with yellow/orange and a purple labellum.

Presently, the commercial cultivar to which 'Grazia' can be meaningfully compared is 'Jules' (unpatented). 'Jules' is a little larger in size than 'Grazia'. 'Grazia' has some red/purple at the base of the sepals and petals whereas 'Jules' has a clear mark at the base which is a mixture of bright red/purple and purple/violet.

#### BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new *Phalaenopsis* 'Grazia' 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 'Grazia'.

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

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

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

#### DETAILED BOTANICAL DESCRIPTION

The new *Phalaenopsis* cultivar 'Grazia' has not been observed under all possible environmental conditions. The phenotype of the new cultivar may vary with variations in 40 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 'Grazia' 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 'Grazia' is 27° C. during the day and at night. Then, during the flowering phase of 'Grazia', the ideal growing temperature is 20-22° C. during the day and 18° C. at night. Light levels for growing 'Grazia' 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 'Grazia' 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 'Grazia' plants described is 12 months after potting. Classification:

Botanical.—Phalaenopsis hybrida.

#### Parentage:

Female or seed parent.—Phalaenopsis cultivar desig- 65 nated 'Tying Shin Dorothy', unpatented.

Male or pollen parent.—Phalaenopsis cultivar designated 'Fusheng's Glad Lip', unpatented.

#### Propagation:

*Type.*—Tissue culture.

Rooting habit and description.—Fleshy; approximately 4 mm — 8 mm wide and green (RHS 137B), greyed/white (RHS 156D) and some green (RHS 128D) 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 40-45 cm. Spread: about 45 cm.

Growth habit.—Small; dark green (RHS 137A) 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 1-3 racemes with flowers appear.

#### Foliage:

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Quantity per plant.—About 6 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 little pointy and asymmetric.

Texture (upper & underside).—Smooth and leathery.

Pubescence.—None.

Mature leaf length.—About 15 to 24 cm.

Mature leaf width.—About 5 to 8 mm.

Mature leaf thickness.—About 1 mm.

Mature leaf color.—Upper side: green (RHS 137A). Under side: yellow/green (RHS 146B).

Leaf base.—Acute.

*Margin*.—Entire.

Venation.—Pattern: parallel. Color of midvein: Upper side: green (RHS 137A). Under side: yellow/green (RHS 143C).

#### Inflorescence description:

Appearance.—Upright to slightly pendant, racemose inflorescence with bilaterally symmetrical flowers that open in succession beginning with the lowermost flower.

Raceme.—Quantity per plant: about 1 to 3. Number of flowers per raceme: about 6 to 20. Length: about 30 to 37 cm.

Peduncle.—Diameter: about 6 mm. Strength: strong. Aspect: upright. Texture: glabrous and smooth. Color: green (RHS N137C and RHS 138A).

Buds.—Height (from base to tip): about 10 mm to 20 mm. Diameter (at midpoint): about 6 mm to 15 mm. Shape: egg-shaped/heart-shaped and asymmetric. Color: green (RHS 144B) at the base some red/purple (RHS 61A).

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.), 1-3 racemes appear with flower buds and flowers. 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.

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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 40 mm to 45 mm. Diameter: about 50 mm to 55 mm. Quantity and arrangement: three petals and three sepals that are trimerous, overlapping and arranged in 2 whorls. Petals are more pronounced than sepals.

*Petals.*—Arrangement: Inner whorl comprises 3 petals: 2 lateral petals and a labellum. 2 lateral petals: Overall 15 shape: broadly ovate, little triangular and weakly cupped. Apex: oval. Margin: entire and weakly undulate. Base: broadly ovate. Length: about 20 mm to 28 mm. Width: about 20 mm to 25 mm. Texture: Upper surface: smooth and satiny. Under surface: smooth <sup>20</sup> and satiny. Color (when fully opened): upper side: edges are a combination of RHS 14C and RHS 150C. At the base some RHS N74B and in the center RHS 58A. Under side: edges are a combination of RHS 14C and RHS 150C. In the center a haze of RHS 59D. 25 Labellum: Overall representation: 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 stubs/append- <sup>30</sup> ages 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. Apex: oval. Length: about 15 mm to 20 mm. Width (not flattened): about 15 mm. Depth of tube created by lateral lobes of 35 labellum: about 8 mm. Texture: Upper and under surface: smooth and satiny. Color (when fully opened): Midlobe: upper surface: At the base RHS 184A which runs into RHS 72B. The bump in the center is RHS N79B. At the end the ribs turn white (RHS NN155C). 40 Under surface: purple (RHS N79C), in the center some white (RHS NN155C). Lateral lobes: upper surface: From base yellow (RHS 13A) and purple stripes/ spots (RHS N79B). At the top some RHS 72B and at the very top some white (RHS NN155C). Under sur- 45 face: darker purple (RHS N79C). At the base some

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white (RHS NN155C). Cirrhi: about 1 mm. Color: RHS NN155C and RHS 72B. Pestle (Callosities): Length: about 3 mm. Width (not flattened): about 4 mm. Color: yellow (RHS 13A) with red/purple spots (RHS 59B). Sides are white (RHS NN155C) with yellow edges (RHS 13A).

Sepals.—Arrangement: Outer whorl comprises 3 sepals, one dorsal and two lateral sepals. Overall shape: eggshaped and weakly cupped. Margin: entire and weakly undulate. Length: about 3 cm. Width: about 2 cm. Apex: oval. Texture: Upper and under surface: smooth and satiny. Color (when fully opened): upper side: the base of dorsal and lateral is red/purple (RHS 58A) which flares. Also at the base and some veins RHS N74A. Top and small edge at the base yellow (RHS 9C). Lateral sepals have some purple spots at the base (RHS N74A) Under side: at the base some RHS N74A, than RHS 58A which flares. Than RHS 9C with in the center a haze of RHS 151D.

Pedicel.—Length: about 35 mm. Diameter: about 3 mm. Texture: glabrous and smooth. Color: yellow/green (RHS 146D) and close to the flower a light haze of red/purple (RHS 64A).

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 7 mm. Diameter: about 5 mm. Color: tip RHS 69D. Base is RHS N74B which runs into RHS 75B.

Pollinia.—Quantity: two. Diameter: about 1 mm. Color: orange (RHS 23A).

Ovary.—Length: about 4 mm. Diameter: about 4 mm. Color: RHS NN 155C and RHS 69D.

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 'Grazia', as illustrated and described herein.

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FIG. 1

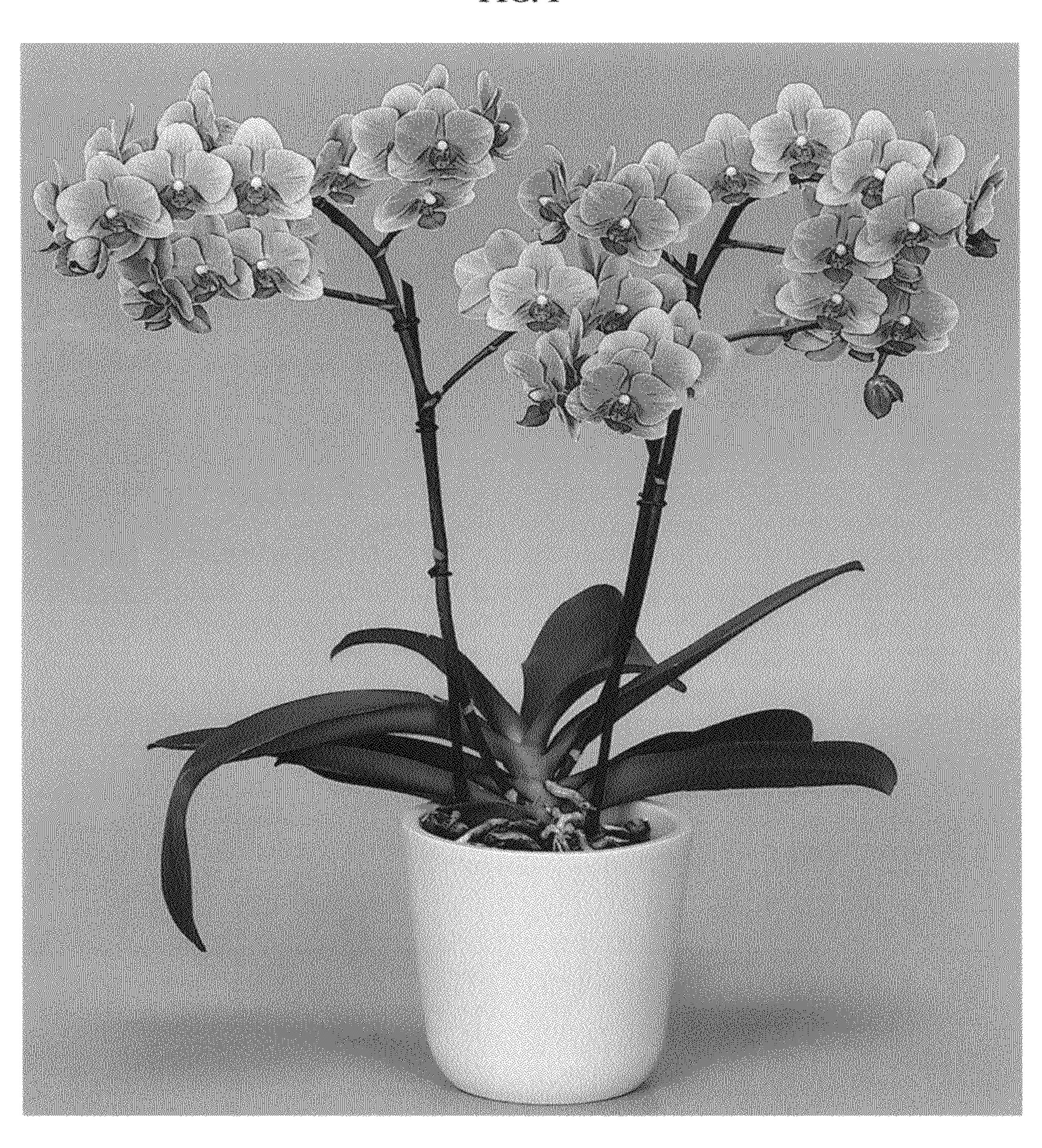


FIG. 2



FIG. 3

