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

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

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

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USPC **Plt./311**

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(57) **ABSTRACT**

A new and distinct *Phalaenopsis* plant named 'Goldmine' particularly characterized by flowers which are yellow/green with a purple and yellow 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

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

Variety denomination: 'Goldmine'.

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 'Goldmine'.

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* 'Goldmine' 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* 'Goldmine' 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 'Golden Glaze', unpatented. The male or pollen parent is the *Phalaenopsis* cultivar designated 'Wyocena', unpatented. The new *Phalaenopsis* 'Goldmine' 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 'Goldmine', which in combination distinguish this *Phalaenopsis* as a new and distinct cultivar:

1. flowers which are yellow/green with a purple and yellow 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 'Goldmine', the female parent 'Golden Glaze' has yellow flowers and the male parent 'Wyocena' has pink striped colored flowers, whereas the flowers of 'Feeling Groovy' are yellow/green with a purple and yellow labellum.

Presently, there is no other commercial cultivar to which 'Goldmine' can be meaningfully compared.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

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

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

FIG. **2** shows a close-up view of the typical buds and flowers of 'Goldmine'.

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

DETAILED BOTANICAL DESCRIPTION

The new *Phalaenopsis* cultivar 'Goldmine' 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 'Goldmine' 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 'Goldmine' is 27° C. during the day and at night. Then, during the flowering phase of 'Goldmine', the ideal growing temperature is 20-22° C. during the day and 18° C. at night. Light levels for growing 'Goldmine' 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 'Goldmine' 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 'Goldmine' plants described is 12 months after potting.

Classification:

Botanical.—Phalaenopsis hybrid.

Parentage:

Female or seed parent.—Phalaenopsis cultivar designated 'Golden Glaze', unpatented.

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

Propagation:

Type.—Tissue culture.

Rooting habit and description.—Fleshy; approximately 4 mm-8 mm wide and greyed green in color (RHS 191C/RHS 195A); freely branching. It takes 12 weeks for plants growing in tissue culture to initiate roots.

Plant:

Size at maturity.—Height: about 60 cm. Spread: about 52 cm.

Growth habit.—Normal; dark-green 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 peduncles with flowers appear.

Foliage:

Quantity per plant.—About 6 to 10 leaves are produced before flowering.

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

Overall shape of leaf.—Oval, narrow, the tip is slightly pointy and asymmetric.

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

Pubescence.—3 to 4 pairs of leaves.

Mature leaf length.—About 10 to 22 cm.

Mature leaf width.—About 4 to 8 cm.

Mature leaf thickness.—About 2 mm.

Mature leaf color.—Upper side: green (RHS 138A). Under side: green (RHS 143A), edges and vein are RHS N77A.

Leaf base.—Acute.

Margin.—Entire.

Venation.—Pattern: parallel. Color of midvein: upper side: green (RHS 138A). under side: red/purple (RHS N77A).

Raceme:

Quantity per plant.—About 1 to 3.

Number of flowers per raceme.—About 4 to 12.

Length.—About 40 to 56 cm.

Diameter.—About 3 to 6 mm.

Strength.—Strong.

Aspect.—Upright.

Texture.—Glabrous and smooth.

Color.—Brown (RHS N200A) with little bit of green (RHS 138A).

Internode.—Length: about 18 to 35 mm.

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 22 mm. Diameter (at midpoint): about 17 mm. Shape: egg-shaped/oval. Color: From base yellow/green (RHS 151 C) which turns into red/purple (RHS 59B).

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.—Light 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: see FIG. **2**. Size: Height: about 57 mm to 75 mm. Diameter: about 60 mm to 75 mm. Depth of tube: about 10 mm.

Petals.—Quantity and arrangement: six petals that are trimerous, overlapping and arranged in 2 whorls. Petals are more pronounced than sepals. Arrangement: Inner whorl of petals comprises 3 petals, 2 lateral petals and labellum. 2 lateral petals: Overall shape: broadly ovate, little triangular and weakly cupped. Apex: oval/round. Margin: entire and weakly undulate. Base: broadly ovate. Length: about 35 to 45 mm. Width: about 25 to 36 mm. Texture: Upper surface: smooth and satiny. Under surface: smooth and satiny. Color (when fully opened): upper side: yellow (RHS 2B) and yellow/green (RHS 150C) with on some lateral petals a yellow/green vein (RHS 149B). At the base little white (RHS NN155B). Under side: yellow (RHS 2B) and yellow/green (RHS 150C) with on some a grey/yellow (RHS 186B) and red vein (RHS 60D). At the base little white (RHS NN155B).

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 short 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: lateral lobes: oval. Midlobe: round corners. Length: about 18 mm. Width (not flattened): about 17 mm. Texture: Upper and under surface: smooth and satiny. Color (when fully opened): Midlobe: upper surface: purple (RHS 186A and RHS 60B) which runs into yellow/orange (RHS 17C). At the base some white (RHS NN155D) Under surface: RHS N81B which runs into grey/purple (RHS 186B and RHS 60B). In the center to the base some white (NN155D). At the base some yellow (RHS 7B) Lateral lobes: upper surface: At the base RHS 12B, with some white (NN155C) and red stripes (RHS N34D). This runs into a thick purple edge (N80A/185A). Under surface: At the base a wide band (RHS NN155C), at the edge a little yellow (RHS 15C) which runs into purple (RHS 185A and RHS N80B). At the other edge also some RHS 185A. Chirri: normal (about 10 mm); tip is very curly; color: grey/purple (RHS 186B), closer to the tip it turns white (RHS NN155D). Pestle (Callosities): Length: about 5 mm. Width (not flattened): about 4 mm. Color: yellow/orange (RHS 15C), on top red spots (RHS N34C), sides white (RHS NN155C and the front is RHS 167.

Sepals.—Arrangement: Outer whorl comprises 3 sepals. Overall shape: elliptical and weakly cupped. Margin: entire and weakly undulate. Length: about 37 mm. Width: about 31 mm. Apex: oval. Texture: Upper and under surface: smooth and satiny. Color (when fully opened): upper surface: yellow (RHS 3B and RHS 150C), the veins are yellow/green (RHS 149B). On the lateral sepals a few purple/red veins (RHS 60B) Under surface: green/yellow (RHS 1C and RHS 150B), at the top some purple (RHS N77C), the veins are yellow/green (RHS 149B).

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: white (RHS NN155D).

Pollinia.—Quantity: two. Diameter: about 1 mm. Color: yellow/orange (RHS 17A).

Ovary.—Length: about 4 mm. Diameter: about 3 mm. Color: white (RHS NN155D).

Pedicel.—Length: about 31 mm. Diameter: about 4 mm. Texture: glabrous and smooth. Color: from yellow/green (RHS 150C) into RHS 149C, into red/purple (RHS 59B).

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 'Goldmine', as illustrated and described herein.

* * * * *

FIG. 1

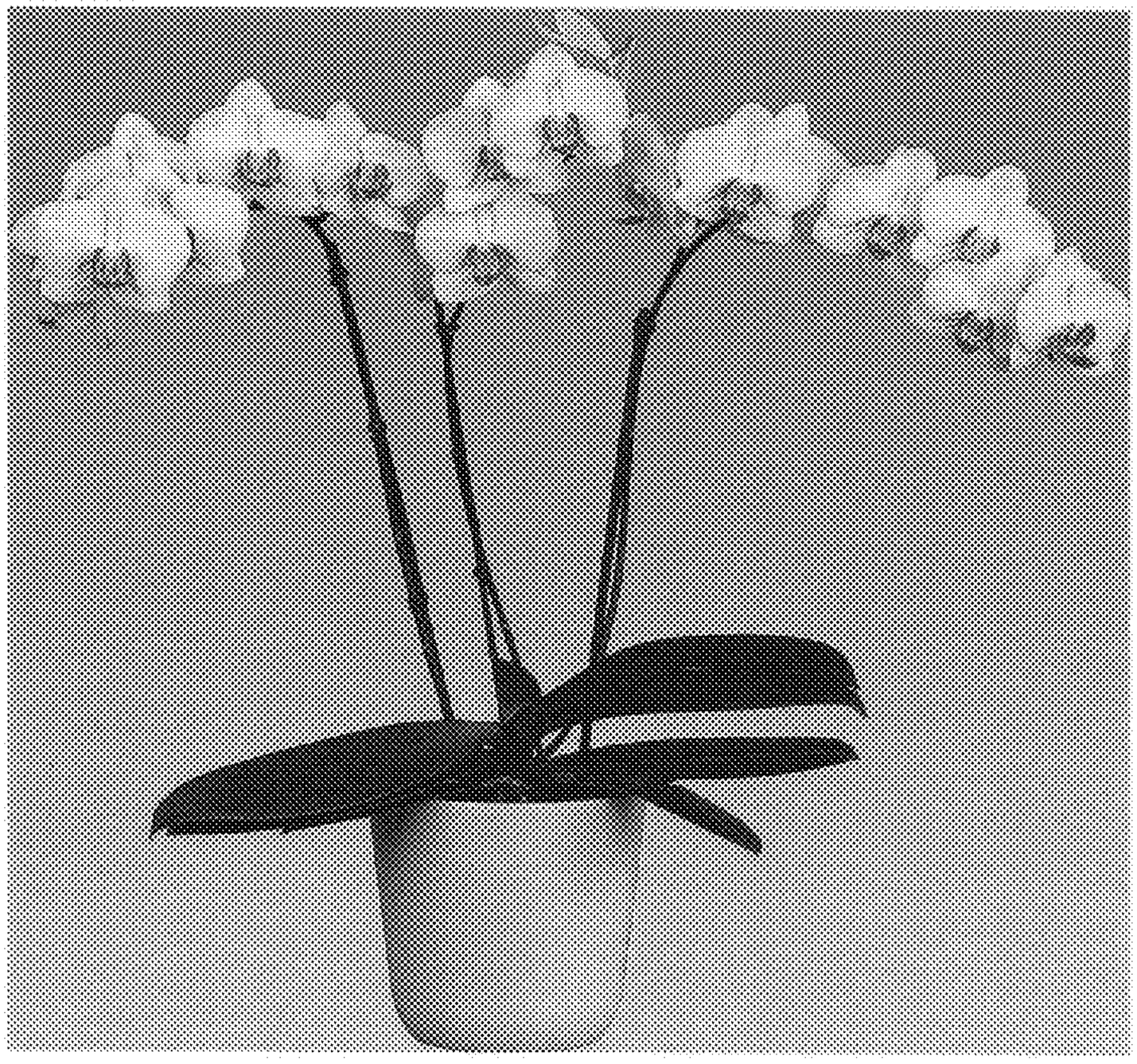

FIG. 2

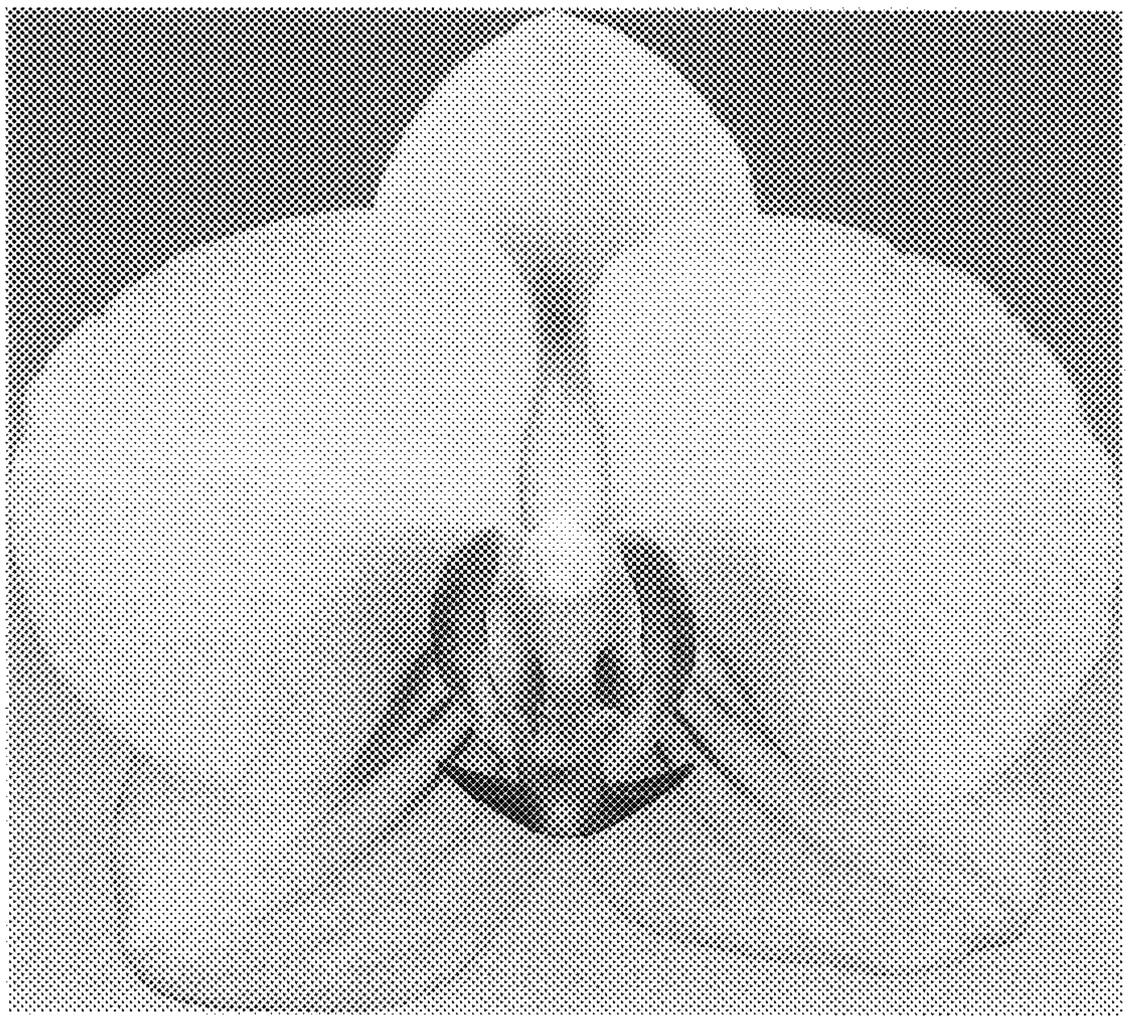

FIG. 3