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Van Swieten

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

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

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(51) **Int. Cl.**
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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of *Phalaenopsis* plant named 'PHALGARBON', particularly characterized by large, white flowers with yellow-green and white lips, flat flower shape in lateral view, compact plant, and is propagated by meristem tissue culture, is disclosed.

3 Drawing Sheets

Genus and species: *Phalaenopsis* hybrid.
Variety denomination: 'PHALGARBON'.

BACKGROUND OF THE NEW PLANT

The present invention relates to a new and distinct cultivar of *Phalaenopsis* plant, botanically known as *Phalaenopsis* hybrid of the Orchidaceae family, commonly referred to as moth orchid, and hereinafter referred to by the variety name 'PHALGARBON'.

The new *Phalaenopsis* plant is a product of a planned breeding program conducted by the inventor in Bleiswijk, the Netherlands. The objective of this breeding program was to create a new, compact *Phalaenopsis* plant with large, white flowers with yellow-green and white lips, suitable for potted plant production.

The new *Phalaenopsis* plant 'PHALGARBON' is a result of cross-pollination made by the inventor in April 2010 in Bleiswijk, the Netherlands, of the proprietary female, or seed parent, *Phalaenopsis* hybrid 'PHALCARDOK' (U.S. Plant Pat. No. 25,447) with the proprietary male, or pollen parent, *Phalaenopsis* hybrid '23312-03' (unpatented).

The new *Phalaenopsis* was selected by the inventor as a single plant within the progeny of the stated cross-pollination in a controlled greenhouse in Bleiswijk, the Netherlands, in January 2013. Asexual reproduction of the new *Phalaenopsis* plant by meristem tissue culture since 2014 in Bleiswijk, the Netherlands, has demonstrated that the new variety reproduces true to type with all of the characteristics, as herein described, firmly fixed and retained through successive generations.

Community Plant Variety Rights for this variety have been applied for in the European Union on Aug. 29, 2019 (Application no. 2019/2057), by Applicant who obtained the subject matter disclosed directly from the inventor. 'PHALGARBON' has not been made publicly available or sold anywhere in the world prior to the effective filing date of this application with the exception of sales or disclosures made

one year or less before the effective filing date of this claimed invention by Applicant who obtained 'PHALGARBON' directly from the inventor.

SUMMARY OF THE INVENTION

The following are the most outstanding and distinguishing characteristics of this new cultivar when grown under normal horticultural practices in Bleiswijk, the Netherlands, and can be used to distinguish 'PHALGARBON' as a new and distinct variety of *Phalaenopsis* plant:

1) Large, white flowers with yellow-green and white lips;
2) Flower shape in lateral view is flat; and
3) Plant is compact.

DESCRIPTION OF THE PHOTOGRAPHS

This new *Phalaenopsis* plant is illustrated by the accompanying photographs which show the overall plant habit including blooms, buds, and foliage of the plant; the colors shown are as true as can be reasonably obtained by conventional photographic procedures. The photographs were taken in a greenhouse in Bleiswijk, the Netherlands, from 50-week-old plants in August 2020. Colors in the photographs may differ from the color values cited in the detailed botanical description, which accurately describe the actual colors of the new variety.

FIG. **1** shows the overall plant habit, including blooms, buds, and foliage of 'PHALGARBON'.

FIG. **2** shows a close-up of a flower of 'PHALGARBON'.

FIG. **3** shows an overhead view of the leaves of 'PHALGARBON'.

DESCRIPTION OF THE NEW VARIETY

The following detailed description sets forth the distinctive characteristics of 'PHALGARBON'. Plants of the new *Phalaenopsis* have not been observed under all possible environmental conditions. The phenotype may vary some-

what with variations in environment such as temperature, light intensity and day length, without, however, any variance in genotype. The chart used in the identification of colors described herein is The R.H.S. Colour Chart of The Royal Horticultural Society, London, England, 2015 edition, except where general color terms of ordinary significance are used. The color values were determined under 4000-6000 lux natural light in a greenhouse in Bleiswijk, the Netherlands. Observations and measurements were made in August 2020 on flowering plants which were planted in 12-centimeter (diameter) pots. After in vitro propagation, the plants were grown in nursery trays for 20-24 weeks, followed by transplantation to 12-centimeter pots and grown in a greenhouse between 27° C. to 29° C. for 30 weeks, continued by a cooling period of 8 weeks between 18° C. to 20° C. and 12 weeks in a greenhouse of 21° C. Flowering occurs after 50 weeks in 12-centimeter pots.

DETAILED BOTANICAL DESCRIPTION

Classification:

Family.—Orchidaceae.

Botanical.—*Phalaenopsis* hybrid.

Common name.—Moth orchid.

Variety name.—'PHALGARBON'.

Parentage:

Female parent.—*Phalaenopsis* cultivar 'PHALCARDOK' (U.S. Plant Pat. No. 25,447).

Male parent.—*Phalaenopsis* cultivar '23312-03' (unpatented).

Propagation:

Type.—Meristem tissue culture.

Roots:

Root description.—Greyed-green (a color in between RHS 190B and 190C) colored roots with branching lateral roots having yellow-green (a color in between RHS N144A and 145A) colored root tips.

Plant:

Commercial crop time to flowering.—Following asexual propagation (in vitro), the rooted cuttings grow for 20-24 weeks. After transplantation into 12-cm pots, the plants are finished after 48 to 50 weeks.

Growth habit of the peduncle.—Upright to slightly pendent with raceme inflorescence.

Height (from soil level to top of inflorescence).—Approximately 55.0 cm to 60.0 cm.

Width (measured from leaf tips).—About 27.0 cm to 29.0 cm.

Vigor.—Strong.

Leaves:

Mature leaves.—Quantity per plant: 7 to 8 leaves are produced before flowering. Length (fully expanded): 13.0 cm to 15.0 cm. Width: 6.5 cm to 7.5 cm. Position of the broadest part of the leaf: Toward apex. Shape: Obovate. Base shape: Moderately elongated. Apex: Unequal obtuse. Leaf blade angle with the petiole (measured from the horizontal position): Between 10 degrees and 25 degrees. Leaf margin: Entire. Color: Upper surface: RHS 146A. Lower surface: RHS 146B. Texture (both upper and lower surfaces): Smooth. Thickness: 2.6 mm to 3.1 mm. Variegation: Absent. Venation: Pattern: Parallel. Color of the midvein: Upper surface: RHS 146A. Lower surface: RHS 146B.

Peduncle:

Quantity per plant.—1 to 2.

Number of flowers per peduncle.—8 to 11.

Length.—55.0 cm to 60.0 cm.

Diameter.—5.4 mm to 5.9 mm.

Strength.—Strong.

Aspect.—Upright to slightly pendent.

Texture.—Smooth.

Color.—Mix of brown (RHS 200B) and yellow-green (RHS 146C).

Internode length.—3.0 cm to 4.0 cm.

Inflorescence description:

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

Number of inflorescences.—1 to 2.

Inflorescence size.—Height (from base to tip): 230.0 mm to 250.0 mm.

Flowering time.—First flowers can be expected 10 to 11 months after planting in a 12-cm pot.

Flower.—Height: 90.0 mm to 95.0 mm. Diameter: 100.0 mm to 105.0 mm. Depth of lip: 27.0 mm to 29.0 mm.

Flower longevity.—On the plant: 9 to 11 weeks.

Flower shape.—Flat.

Fragrance.—Absent.

Flower bud.—Average size: Medium to large. Length: 25.0 mm to 27.0 mm. Width: 19.0 mm to 21.0 mm. Shape: Egg shaped. Color: Yellow-green (a color in between RHS 145C and 150C) with a touch of very light purple (RHS 76B).

Petals.—Arrangement: Open/free. Shape: Semi-circular. Apex: Rounded asymmetric. Margin: Entire. Length (from base to tip): 49.0 mm to 51.0 mm. Width: 62.0 mm to 64.0 mm. Position of the broadest part of the petal: Toward the base. Color (when fully opened): Upper surface: Basic color: White (RHS NN155C). Over color: Absent. Lower surface: Basic color: White (RHS NN155C). Over color: Absent. Number of spots and stripes on the petals (upper surface): None. Color of spots and stripes on the petals (upper surface): Not applicable. Density of netting of the petals (upper surface): None. Color of the netting (upper surface): Not applicable.

Dorsal sepal.—Shape: Elliptic. Apex: Obtuse symmetric. Margin: Entire. Length (from base to tip): 52.0 mm to 54.0 mm. Width: 37.0 mm to 39.0 mm. Position of the broadest part of the dorsal sepals: At the middle. Color (when fully opened): Upper surface: Basic color: White (RHS NN155C). Over color: Absent. Lower surface: Basic color: White (RHS NN155C). Over color: Diluting very light yellow-green (RHS 157B) and very light purple (RHS 76B). Number of spots and stripes on the dorsal sepals (upper surface): None. Color of spots and stripes on the dorsal sepals (upper surface): Not applicable. Density of netting of the dorsal sepals (upper surface): None. Color of the netting: Not applicable.

Lateral sepals.—Shape: Ovate. Apex: Obtuse symmetric. Margin: Entire. Length (from base to tip): 53.0 mm to 55.0 mm. Width: 30.0 mm to 32.0 mm. Position of the broadest part of the lateral sepals: Toward the base. Color (when fully opened): Upper

surface: Basic color: White (RHS NN155C). Over color: Light yellow-green (RHS 157B) at the base. Lower surface: Basic color: White (RHS NN155C). Over color: Light yellow-green (a color in between RHS 145C and 145D). Number of spots and stripes on the lateral sepals (upper surface): None. Color of spots and stripes on the lateral sepals (upper surface): Not applicable. Density of netting of the lateral sepals (upper surface): None. Color of the netting (upper surface): Not applicable.

Labellum (*lip*).—Whiskers: Present. Length of whiskers: 30.0 mm to 32.0 mm. Color of whiskers: White (RHS NN155C) at the base and greenish-yellow (RHS 3B) toward the tip. Pubescence on the lip: Absent.

Lateral lobe.—Shape: Type V (as described in the International Union for the Protection of New Varieties of Plants (UPOV) Test Guidelines for *Phalaenopsis*); spatulate. Margin: Undulated (widely wavy). Length: 21.0 mm to 23.0 mm. Width: 17.0 mm to 19.0 mm. Color: Upper surface: Reddish-orange margins and the base (RHS 178B) and yellow-green (a color in between RHS 154B and 1A) on one side toward the callus; white (RHS NN155C) toward the other side. Lower surface: Reddish-orange margin (RHS 178B) and yellow-green (a color in between RHS 154B and 1A) on one side toward the callus; white (RHS NN155C) toward the other side. Number of spots and stripes on the lateral lobe: Medium stripes at the base. Color of spots and stripes on the lateral lobe: Red (RHS 178A) and reddish-orange (RHS 178B). Density of netting of the lateral lobe: None. Color of the netting: Not applicable.

Apical lobe.—Shape: Triangular. Margin: Entire. Length: 23.0 mm to 25.0 mm. Width: 25.0 mm to 27.0 mm. Color: Upper surface: Reddish-orange margin (a color in between RHS 178A and 178B) at the base; yellow-green (a color in between RHS 154B and 1A) at the base; white (RHS NN155C) toward whiskers. Lower surface: Reddish-orange margin (a color in between RHS 178A and 178B) at the base; yellow-green (a color in between RHS 154B and 1A) at the base; white (RHS NN155C) toward whiskers. Number of spots and stripes on the apical lobe: None. Color of spots and stripes on the apical lobe: Not applicable. Density of netting of the apical lobe: None. Color of the netting: Not applicable.

Callus.—Average size: Medium to large. Height: 7.0 mm to 8.0 mm. Length: 5.0 mm to 6.0 mm. Width: 4.0 mm to 5.0 mm. Color: Yellow (RHS 14A); white (RHS NN155C) on sides; dotted (RHS 178A).

Reproductive organs:

Column.—Length: 8.0 mm to 10.0 mm. Diameter: 5.0 mm to 6.0 mm. Color: White (RHS NN155C).

Pollinia.—Quantity: 2. Diameter: 0.9 mm to 1.1 mm. Color: Orange (RHS 24A).

Ovary.—Length: 11.0 mm to 13.0 mm. Diameter: 2.4 mm to 2.6 mm.

Pedicel.—Length: 39.0 mm to 41.0 mm. Diameter: 2.8 mm to 3.2 mm. Texture: Smooth. Color: Yellow-green (RHS 146D) at the base; light yellow-green (RHS 145C) and (RHS 157B) toward the flower.

Disease, pest, and stress resistance: No specific resistance or susceptibility observed to pathogens and pests common to *Phalaenopsis* to date.

Fruit and seeds: Fruit and seed development has not been observed on plants of the new *Phalaenopsis* to date.

COMPARISON WITH PARENTAL LINES AND MOST SIMILAR VARIETIES

'PHALGARBON' differs from female parent plant 'PHALCARDOK' (U.S. Plant Pat. No. 25,447) in that 'PHALGARBON' has rounded petal apexes, whereas 'PHALCARDOK' has mucronate petal apexes. Additionally, 'PHALGARBON' has shorter leaves than 'PHALCARDOK'.

'PHALGARBON' differs from male parent plant '23312-03' (unpatented) in that 'PHALGARBON' has obtuse dorsal sepal apexes, whereas '23312-03' has emarginated dorsal sepal apexes. Additionally, 'PHALGARBON' has larger flowers than '23312-03'.

'PHALGARBON' is most similar to the commercial *Phalaenopsis* plants named 'PHALFOWIC' (U.S. Plant Pat. No. 29,245) and 'PHALFUBNE' (U.S. Plant Pat. No. 30,395). 'PHALGARBON' differs from the commercial variety 'PHALFOWIC' in that 'PHALGARBON' has lateral sepals with a lower surface over color of light yellow-green, whereas 'PHALFOWIC' has lateral sepals with a lower surface over color of light green at the base and slightly light purple toward the apex. Additionally, 'PHALGARBON' has longer whiskers than 'PHALFOWIC'.

'PHALGARBON' differs from the commercial variety 'PHALFUBNE' in that 'PHALGARBON' has obtuse leaf apexes, whereas 'PHALFUBNE' has rounded leaf apexes. Additionally, 'PHALGARBON' has smaller flowers, longer whiskers, and narrower leaves than 'PHALFUBNE'.

I claim:

1. A new and distinct variety of *Phalaenopsis* plant named 'PHALGARBON', substantially as described and illustrated herein.

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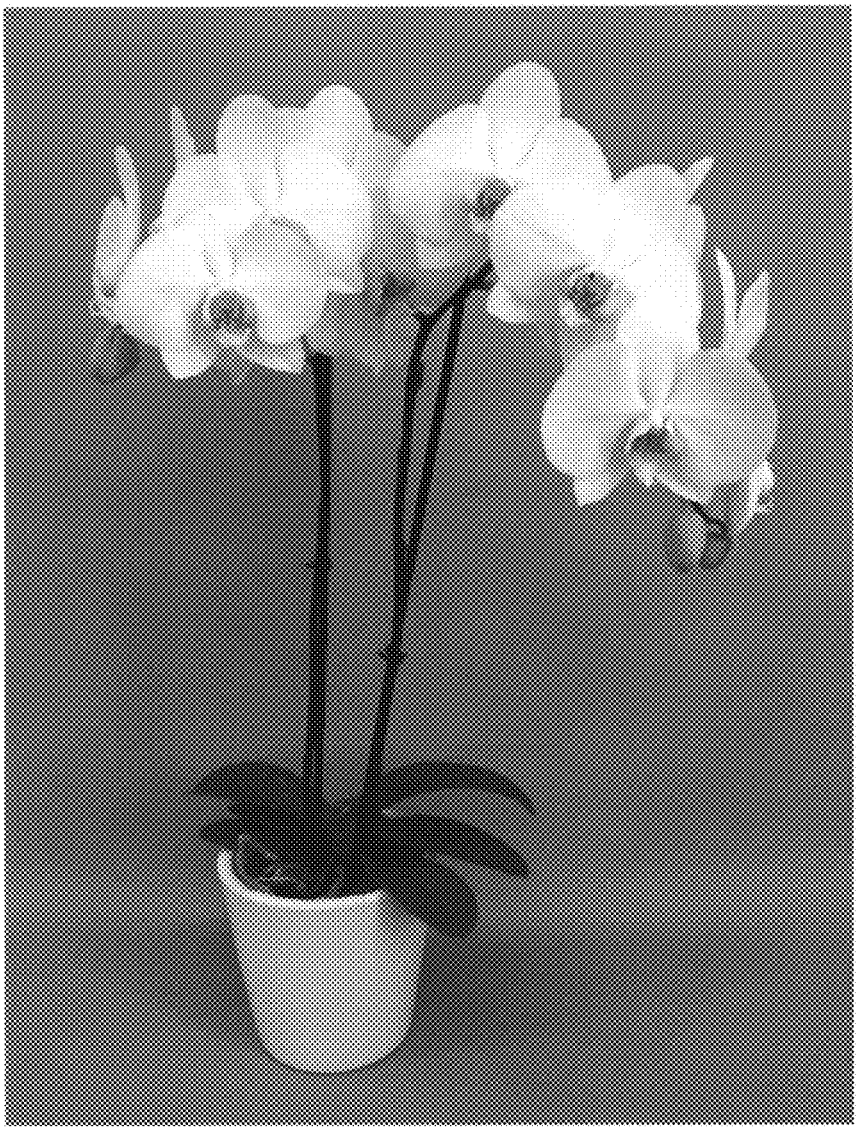

FIG. 1

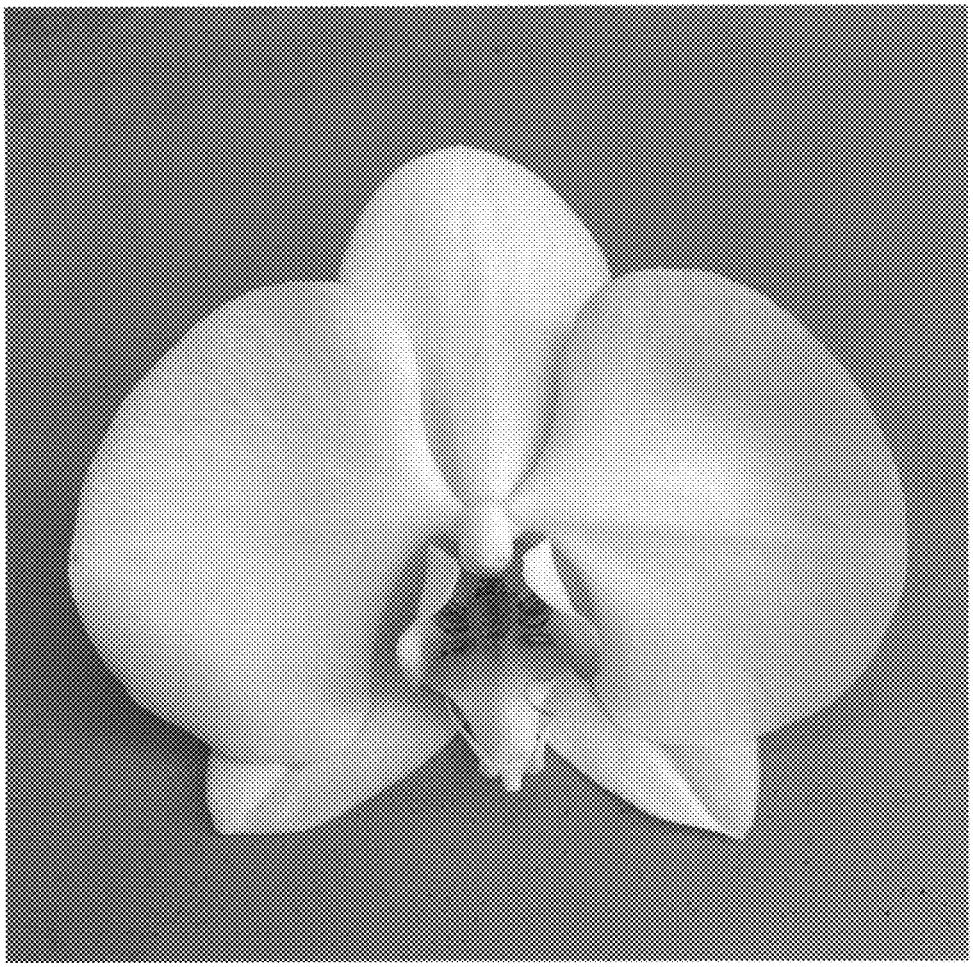

FIG. 2

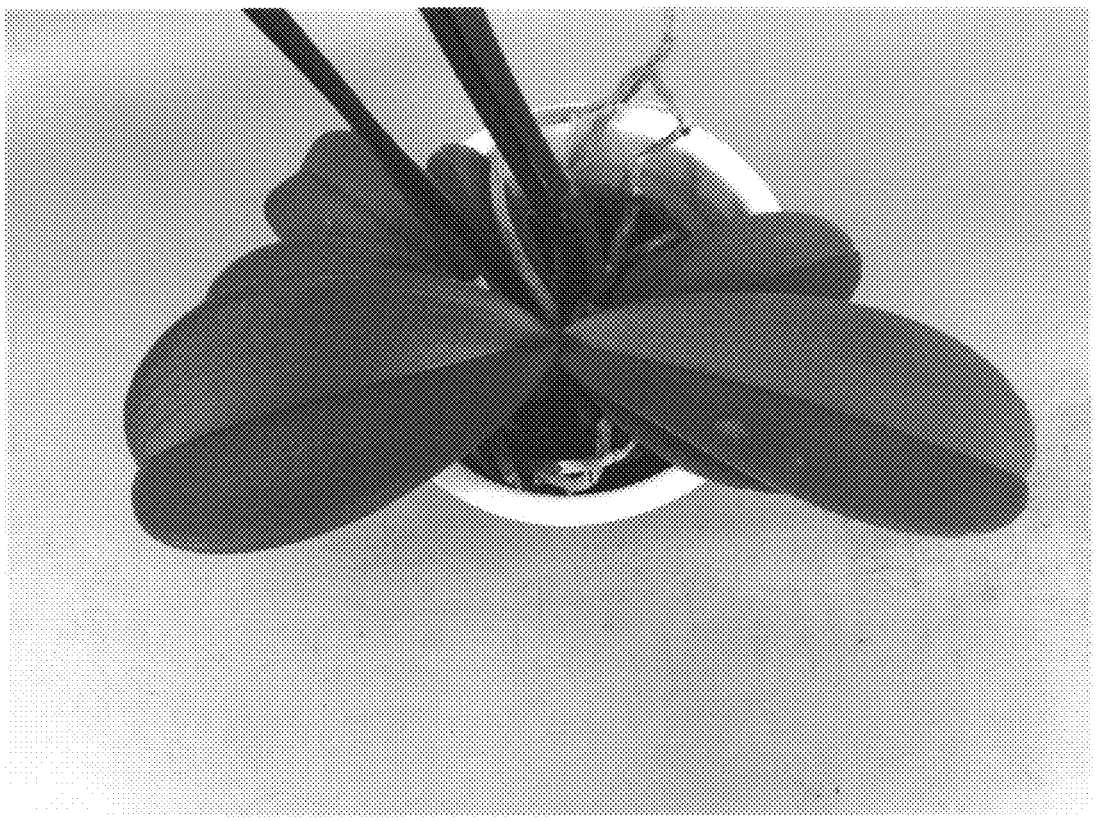

FIG. 3