



US00PP27203P3

(12) **United States Plant Patent**
Van Swieten

(10) **Patent No.:** **US PP27,203 P3**
(45) **Date of Patent:** **Sep. 27, 2016**

(54) **PHALAEOPSIS ORCHID PLANT NAMED**
'PHALDISAM'

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

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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 25 days.

(21) Appl. No.: **14/544,666**

(22) Filed: **Feb. 2, 2015**

(65) **Prior Publication Data**

US 2016/0227691 P1 Aug. 4, 2016

(51) **Int. Cl.**
A01H 5/02 (2006.01)

(52) **U.S. Cl.**
USPC **Plt./311**

(58) **Field of Classification Search**
USPC Plt./263.1, 311
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of *Phalaenopsis* plant named 'PHALDISAM', particularly characterized by having white flowers with dark purple flecks, the intensity of which depends on the temperature during opening of the flower buds, 1 to 2 peduncles, a peduncle that is long and moderate, leaves that are obovate and moderately elongated, and is propagated by tissue culture is disclosed.

3 Drawing Sheets

1

Genus and species: *Phalaenopsis* Hybrid.
Variety denomination: 'PHALDISAM'.

BACKGROUND OF THE NEW PLANT

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

Phalaenopsis comprises a genus of about 60 species of herbaceous perennials many of which, or the hybrids thereof, are suitable for cultivar 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 12 to 20 cm to over 60 cm. 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 or panicles, 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 petals, called the labellum, are three-lobed and are 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 arise from the lower bracts of the inflorescence. The resulting plants are detached from the mother plants and may be planted in a suitable substrate.

The new *Phalaenopsis* 'PHALDISAM' is particularly characterized by its attractive and unique white flowers with

2

dark purple flecks, economical propagation by tissue culture, rapid growth, and a plant dimension suitable for packaging and shipping to the market.

'PHALDISAM' is a product of a planned breeding program conducted in Bleiswijk, The Netherlands.

The new *Phalaenopsis* 'PHALDISAM' originated from a cross made in August 2005 in Bleiswijk, The Netherlands. The female parent is a white flecked *Phalaenopsis* pot plant named '21062-0018' (unpatented), while the male parent is a pink *Phalaenopsis* pot plant named '04347-0001' (unpatented). A single plant was selected in August 2008 and has been asexually reproduced repeatedly by meristem tissue culture in Bleiswijk, The Netherlands over a 3.5-year period. The new variety has been found to retain its distinctive characteristics through successive asexual propagations.

Asexual reproduction of 'PHALDISAM' by tissue culture was first performed in July 2011 in Bleiswijk, The Netherlands and has demonstrated that the new cultivar is firmly fixed and retained through successive generations of asexual reproduction.

Plant Breeder's Rights for this variety have been applied for in Europe on Apr. 25, 2014. 'PHALDISAM' has not been made publicly available or sold anywhere in the world more than one year prior to the filing date of this application.

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.

- 1) White flowers with dark purple flecks, the intensity of which depends on the temperature during opening of the flower buds;
- 2) 1 to 2 peduncles;
- 3) Peduncle is long and moderate;

- 4) The shape of the leaf is obovate and moderately elongated; and
5) Plants are propagated by meristem tissue culture.

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 are of a 50-week old plant grown in a greenhouse in Bleiswijk, The Netherlands in October 2014.

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

FIG. 2 shows a close-up of a flower of 'PHALDISAM'.

FIG. 3 shows a close-up of the leaves of 'PHALDISAM'.

DESCRIPTION OF THE NEW VARIETY

The following detailed description sets forth the distinctive characteristics of 'PHALDISAM'. The data which define these characteristics were collected from asexual reproductions carried out in Bleiswijk, The Netherlands. The plant history was taken on 50-week old plants which were planted from tissue culture in 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. Observations were made in October 2014. Color readings were taken under 4-6000 lux natural light in the greenhouse. Color references are primarily to The R.H.S. Colour Chart of The Royal Horticultural Society of London (R.H.S.) (2001).

DETAILED BOTANICAL DESCRIPTION

Classification:

Family.—Orchidaceae.

Botanical.—*Phalaenopsis* Hybrid.

Common name.—*Phalaenopsis*.

Variety name.—'PHALDISAM'.

Parentage:

Female parent.—*Phalaenopsis* cultivar '21062-0018' (unpatented).

Male parent.—*Phalaenopsis* cultivar '04347-0001' (unpatented).

Propagation:

Type.—Tissue culture.

Plant:

Crop time (time to produce a finished flowering plant).—48 to 50 weeks for a 12 cm pot.

Growth habit of peduncle.—Standard, green leaves, raceme to panicle.

Height (including pot, including inflorescence).—50.0 cm to 60.0 cm.

Width (measured from leaf tips).—34.0 cm to 39.0 cm.

Vigor.—Moderate.

Roots:

Root description.—Grey-green-colored roots with branching lateral roots having grey-green colored root tips.

Leaves:

Mature leaves.—Quantity per plant: 6 to 8 leaves are produced before flowering. Length (fully expanded): 16.0 cm to 20.0 cm. Width: 5.5 cm to 7.5 cm. Shape: Obovate. Base shape: Moderately elongated. Apex:

Unequal obtuse. Leaf blade angle with the petiole: Between 15 degrees and 30 degrees. Leaf margin: Entire. Color: Upper surface: RHS 147A. Lower surface: RHS 147B. Texture: Slightly rough. Thickness: 2.4 mm to 2.9 mm. Venation: Pattern: Parallel. Color of the midvein: Upper surface: RHS 147A. Lower surface: RHS 146A.

Peduncle:

Quantity per plant.—1 to 2.

Number of flowers per peduncle.—8 to 13.

Length.—40.0 cm to 45.0 cm.

Diameter.—5.3 mm to 5.6 mm.

Strength.—Moderate.

Aspect.—Upright.

Texture.—Smooth.

Color.—Brown (RHS 200C).

Internode length.—27.0 mm to 37.0 mm.

Callosities.—None.

Inflorescence description:

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

Inflorescence size.—Height (from base of first flower to tip of inflorescence): 140.0 mm to 190.0 mm. Diameter (diameter of peduncle of inflorescence): 4.0 mm to 4.5 mm.

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

Flower.—Height: 79.0 mm to 84.0 mm. Diameter: 85.0 mm to 90.0 mm. Depth of lip: 18.5 mm to 20.5 mm.

Flower longevity.—On the plant: 13 to 15 weeks.

Fragrance.—Absent.

Petals.—Arrangement: Free. Shape: Semi-circular.

Apex: Asymmetric emarginated. Margin: Entire.

Length (from base to tip): 38.0 mm to 40.0 mm.

Width: 41.0 mm to 43.0 mm. Color (when fully opened): Main color: Flecks are red-purple/greyed-purple (RHS 59A, 187D and 187A); the flecks become darker with lower temperature and lighter with higher temperature. At the base: White (RHS 155C).

Dorsal sepal.—Shape: Elliptic. Margin: Entire. Length (from base to tip): 39.0 mm to 41.0 mm. Width: 28.0 mm to 30.0 mm. Color (when fully opened): Main color: Flecks are red-purple/greyed-purple (RHS 59A, 187D and 187A); the flecks become darker with lower temperature and lighter with higher temperature. At the base: White (RHS 155C).

Lateral sepals.—Shape: Ovate. Margin: Entire. Length (from base to tip): 42.0 mm to 44.0 mm. Width: 25.0 mm to 27.0 mm. Color (when fully opened): Main color: Flecks are red-purple/greyed-purple (RHS 59A, 187D and 187A); the flecks become darker with lower temperature and lighter with higher temperature. At the base: White (RHS 155C).

Labellum (lip).—Margin: Entire. Length: 20.0 mm to 22.0 mm. Width: 17.0 mm to 19.0 mm. Whiskers: Present. Length of whiskers: Short; 5.0 mm.

Lateral lobe.—Shape: Type V (as described in the International Union for the Protection of New Varieties of Plants (UPOV) Test Guidelines for *Phalaenopsis*). Curvature: Medium. Color: Red-purple (RHS 59A and 60C) with a small yellow spot towards callus (RHS 3C).

Apical lobe.—Shape: Trullate. Color: Red-purple (RHS 60A and 64B) with a small yellow spot towards callus (RHS 3C).

Callus.—Color: Dark purple (RHS 187A and 187C).

*Pedice*l.—Length: 29.0 mm to 31.0 mm. Diameter: 3.2 mm to 3.4 mm.

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 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.

Column.—Length: 9.0 mm to 11.0 mm. Diameter: 5.6 mm to 5.8 mm. Color: Purple (RHS 78A).

Pollinia.—Quantity: 2. Size: 1.0 mm to 1.2 mm. Color: Orange (RHS 25A).

Ovary.—Length: 12.0 mm to 14.0 mm. Diameter: 2.7 mm to 2.9 mm.

Disease, pest, and stress resistance: No specific resistance or susceptibility observed.

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

COMPARISON WITH PARENTAL AND COMMERCIAL VARIETIES

‘PHALDISAM’ differs from female parent ‘21062-0018’ (unpatented) in that ‘PHALDISAM’ has a red-purple lip

with a small yellow spot towards the callus, whereas ‘21062-0018’ has a yellow-white and lilac lip. Additionally, ‘PHALDISAM’ has a type V lateral lobe and darker green leaves, whereas ‘21062-0018’ has a type IV lateral lobe and lighter green leaves.

‘PHALDISAM’ differs from male parent ‘04347-0001’ (unpatented) in that ‘PHALDISAM’ has flowers that are white with dark purple flecks and a dark purple callus, whereas ‘04347-0001’ has flowers that are evenly pink and a yellow dotted callus. Additionally, ‘PHALDISAM’ has more narrow petals with undulation of the margin, whereas ‘04347-0001’ has broader petals with an entire margin.

‘PHALDISAM’ differs from commercial variety ‘PHALFUNEL’ (unpatented) in that ‘PHALDISAM’ has a red-purple apical lobe of the lip with a small yellow spot towards the callus and shorter whiskers, whereas ‘PHALFUNEL’ has a yellow-white apical lobe of the lip and longer whiskers. Additionally, ‘PHALDISAM’ has a purple column, whereas ‘PHALFUNEL’ has a white column.

I claim:

1. A new and distinct variety of *Phalaenopsis* plant named ‘PHALDISAM’, substantially as described and illustrated herein.

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FIG. 1

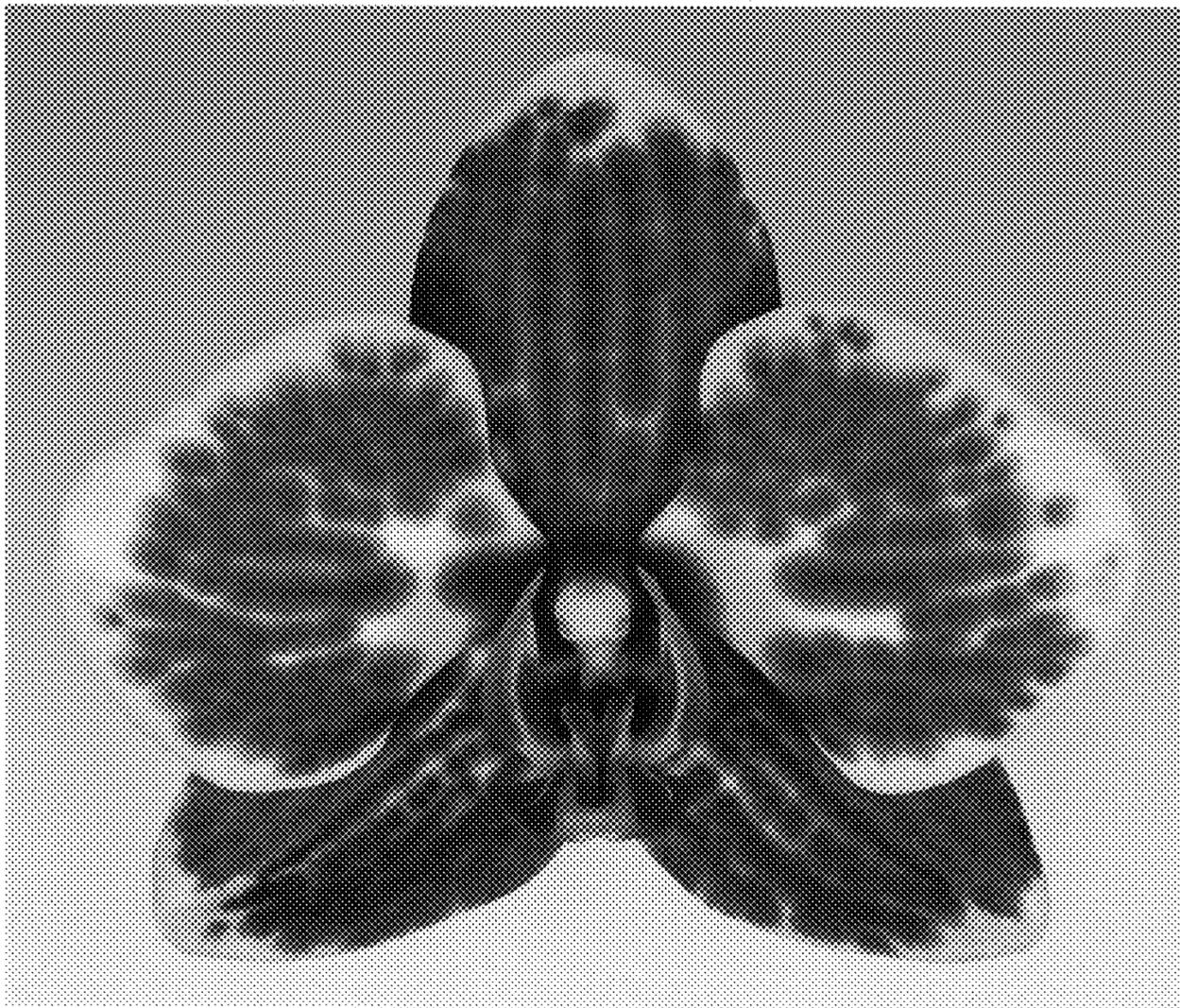


FIG. 2

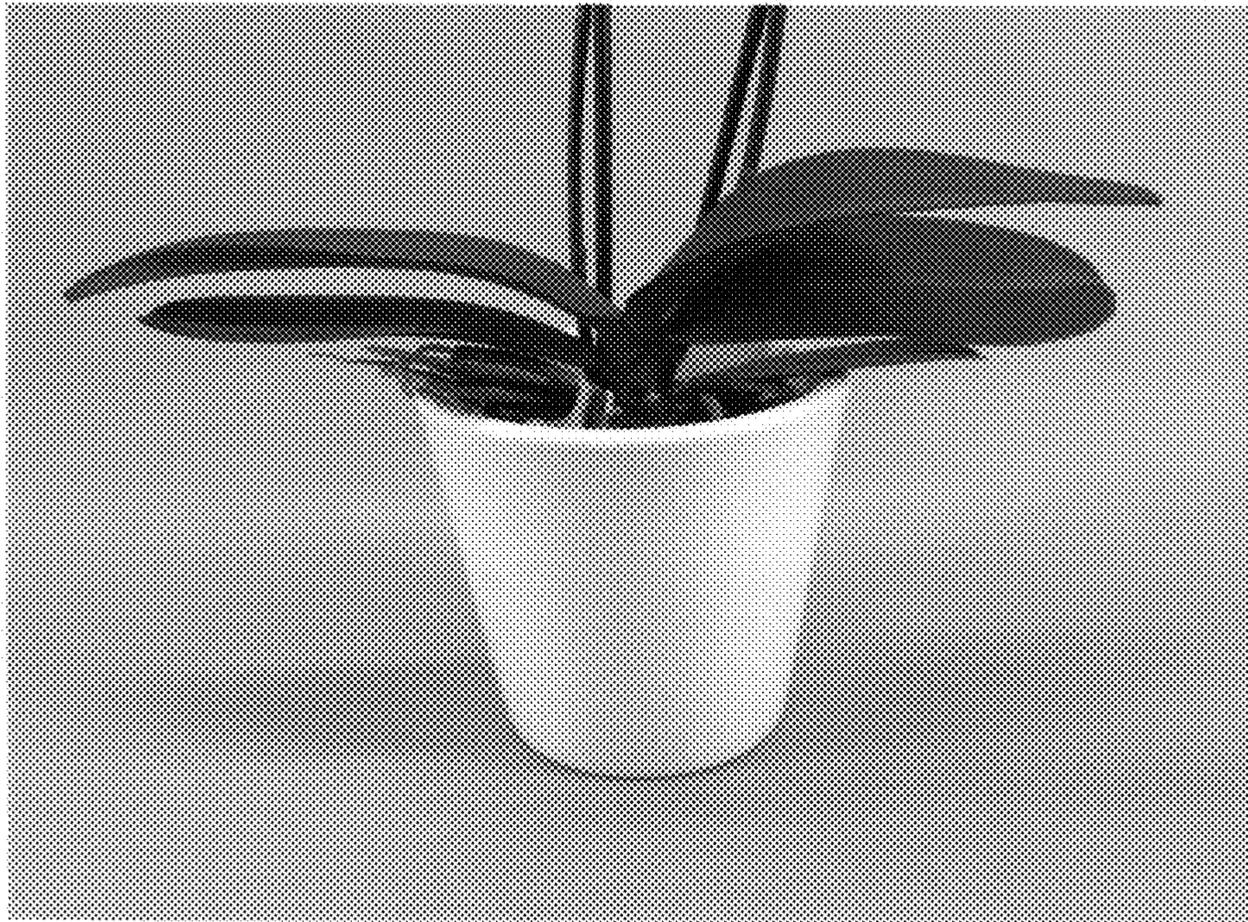


FIG. 3