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Van Swieten

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

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

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A01H 5/02 (2006.01)

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

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

(56) **References Cited**

PUBLICATIONS

PLUTO Plant Variety Database Sep. 7, 2016. p. 1.*
Enclosure for the Plant Patent application of Anthura BV, 13 pages, 2015.

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(57) **ABSTRACT**

A new and distinct variety of *Phalaenopsis* plant named 'PHALFENCK', particularly characterized by having dark purple flowers with a lilac edge, 1 to 2 peduncles, an inflorescence that is long and sturdy, leaves that are oblong, and is propagated by meristem tissue culture is disclosed.

3 Drawing Sheets

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

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 'PHALFENCK'.

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, 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

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inflorescence. The resulting plants are detached from the mother plants and may be planted in a suitable substrate.

The new *Phalaenopsis* 'PHALFENCK' is particularly characterized by its attractive and unique dark purple flowers with lilac edge, economical propagation by tissue culture, rapid growth, and a plant dimension suitable for packaging and shipping to the market.

'PHALFENCK' is a product of a planned breeding program conducted by the inventor in Bleiswijk, The Netherlands.

The new *Phalaenopsis* 'PHALFENCK' originated from a cross made in November 2006 in Bleiswijk, The Netherlands. The female parent is a purple *Phalaenopsis* pot plant named '01-1434' (unpatented), while the male parent is a dark purple *Phalaenopsis* pot plant named '01-1921' (unpatented). A single plant was selected in November 2009 and has been asexually reproduced repeatedly by meristem tissue culture in Bleiswijk, The Netherlands over a 3-year period. The new variety has been found to retain its distinctive characteristics through successive asexual propagations.

Asexual reproduction of 'PHALFENCK' by tissue culture was first performed in December 2012 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 Sep. 29, 2014. 'PHALFENCK' 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) Dark purple flower with lilac edge;
- 2) 1 to 2 peduncles;
- 3) Inflorescence is long and sturdy;
- 4) Shape of the leaf is oblong; 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 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 July 2015.

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

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

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

DESCRIPTION OF THE NEW VARIETY

The following detailed description sets forth the distinctive characteristics of 'PHALFENCK'. 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 a nursery tray 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 July 2015. 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.) (1995).

DETAILED BOTANICAL DESCRIPTION

Classification:

Family.—Orchidaceae.

Botanical.—*Phalaenopsis* hybrid.

Common name.—*Phalaenopsis*.

Variety name.—'PHALFENCK'.

Parentage:

Female parent.—*Phalaenopsis* cultivar '01-1434' (unpatented).

Male parent.—*Phalaenopsis* cultivar '01-1921' (unpatented).

Propagation:

Type.—Meristem 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).—58.0 cm to 68.0 cm.

Width (measured from leaf tips).—30.0 cm to 35.0 cm.

Vigor.—Strong.

Roots:

Root description.—Greyed-green colored roots with branching lateral roots having greyed-purple colored root tips.

Leaves:

Mature leaves.—Quantity per plant: 6 to 8 leaves are produced before flowering. Length (fully expanded):

17.0 cm to 19.0 cm. Width: 7.0 cm to 9.0 cm. Shape: Obovate. Base shape: Moderately elongated. Apex: Unequal rounded. Leaf blade angle with the petiole (measured from the horizontal position): Between 30 degrees and 65 degrees. Leaf margin: Entire. Color: Upper surface: RHS 147A. Lower surface: RHS 147A with greyed-purple edge (RHS 187A). Texture: Slightly rough. Thickness: 2.7 mm to 2.9 mm. Venation: Pattern: Parallel. Color of the midvein: Upper surface: Mix of green (RHS 147A) and greyed-purple (RHS 187A). Lower surface: Mix of green (RHS 147B) and greyed-purple (RHS 187A).

Peduncle:

Quantity per plant.—1 to 2.

Number of flowers per peduncle.—11 to 16.

Length.—53.0 cm to 57.0 cm.

Diameter.—5.3 mm to 6.3 mm.

Strength.—Strong.

Aspect.—Upright.

Texture.—Smooth.

Color.—Mix of brown (RHS 200A) and green (RHS 147C).

Internode length.—50.0 mm to 60.0 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 to tip): 210.0 mm to 240.0 mm. Diameter: 4.4 mm to 4.7 mm.

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

Flower.—Height: 64.0 mm to 69.0 mm. Diameter: 78.0 mm to 83.0 mm. Depth of lip: 17.0 mm to 19.0 mm.

Flower longevity.—On the plant: 10 to 16 weeks.

Fragrance.—Absent.

Flower bud.—Average size: Medium. Length: 1.9 cm to 2.1 cm. Width: 1.7 cm to 1.9 cm. Shape: Egg shaped. Color: Mix of green (RHS 146A to 146C) and purple (RHS 187A and 79A).

Petals.—Arrangement: Open/free. Shape: Semi-circular. Apex: Rounded and emarginated symmetric. Margin: Entire. Length (from base to tip): 34.0 mm to 36.0 mm. Width: 45.0 mm to 47.0 mm. Color (when fully opened): Upper surface: Basic color: Red-purple (RHS 59A) with edge (RHS 76A). Over color: Absent. Lower surface: Basic color: Light purple (RHS 76B to 76C). Over color: Absent.

Dorsal sepal.—Shape: Elliptic. Apex: Rounded symmetric. Margin: Entire. Length (from base to tip): 37.0 mm to 39.0 mm. Width: 26.0 mm to 28.0 mm. Color (when fully opened): Upper surface: Basic color: Red-purple (RHS 59A) with light purple apex (RHS 76C). Over color: Absent. Lower surface: Basic color: Light purple (RHS 76C) striped (RHS 78C) with edge (RHS 77A). Over color: Absent.

Lateral sepals.—Shape: Ovate. Apex: Slightly asymmetric obtuse. Margin: Entire. Length (from base, to tip): 38.0 mm to 40.0 mm. Width: 25.0 mm to 27.0 mm. Color (when fully opened): Upper surface: Basic color: Red-purple (RHS 59A) with light purple apex (RHS 76C). Over color: Absent. Lower surface:

Basic color: Light purple (RHS 76B) striped (RHS 78A). Over color: Green towards the base (RHS 145C to 145D).

Labellum (lip).—Margin: Entire. Whiskers: Present. Length of whiskers: 12.0 mm to 14.0 mm. Color of whiskers: Red-purple (RHS 71A) with yellow tips (RHS 2D). 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. Length: 21.0 mm to 23.0 mm. Width: 16.0 mm to 18.0 mm. Color: Red-purple (RHS 59A and 78A) with touch of white (RHS 155C) and yellow (RHS 9A).

Apical lobe.—Shape: Triangular. Length: 22.0 mm to 24.0 mm. Width: 20.0 mm to 22.0 mm. Color: Red-purple (RHS 78A and 59A) and yellow towards the base (RHS 9A).

Callus.—Average size: Medium. Height: 6.0 mm to 8.0 mm. Length: 5.0 mm to 7.0 mm. Width: 4.0 mm to 6.0 mm. Color: Greyed-purple (RHS 187A) and yellow-orange on the side (RHS 14C).

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: 8.0 mm to 10.0 mm. Diameter: 5.4 mm to 5.7 mm. Color: White (RHS 15C) and purple (RHS 78B).

Pollinia.—Quantity: 2. Size: 1.1 mm to 1.3 mm. Color: Yellow-orange (RHS 23A).

Ovary.—Part of the pedicel with small ribs towards the column. Length: 9.0 mm to 11.0 mm. Diameter: 2.0 mm to 2.2 mm.

Pedicel.—Length: 34.0 mm to 36.0 mm. Diameter: 2.9 mm to 3.1 mm. Color: Greyed-purple (RHS 187A)

from the inflorescence and green (RHS 146D) and light purple (RHS 78D) towards the flower.

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 of about 30° C.

COMPARISON WITH PARENTAL AND
COMMERCIAL VARIETIES

‘PHALFENCK’ differs from female parent variety ‘01-1434’ (unpatented) in that ‘PHALFENCK’ has an edged flower and a callus of the lip that is dark greyed-purple, whereas ‘01-1434’ has an even flower and a callus of the lip that is yellow dotted. Additionally, ‘PHALFENCK’ has darker colored flowers than ‘01-1434’.

‘PHALFENCK’ differs from male parent variety ‘01-1921’ (unpatented) in that ‘PHALFENCK’ has a flower with a broader/wider edge and a darker color lip, whereas ‘01-1921’ has a flower with a small edge and a lighter color lip. Additionally, ‘PHALFENCK’ has a flower bud that is a mix of darker purple color and darker green, whereas ‘01-1921’ has a flower bud that is lighter green and slightly greyed-purple.

‘PHALFENCK’ differs from commercial variety ‘PHALDUNBIS’ (unpatented) in that ‘PHALFENCK’ has a flower with a broader/wider edge and shorter whiskers, whereas ‘PHALDUNBIS’ has a flower with a small edge and longer whiskers. Additionally, ‘PHALFENCK’ has a callus of the lip that is dark greyed-purple and yellow on the sides, whereas ‘PHALDUNBIS’ has a callus of the lip that is dark greyed-purple and yellow on the upper surface and on the sides.

I claim:

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

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FIG. 1

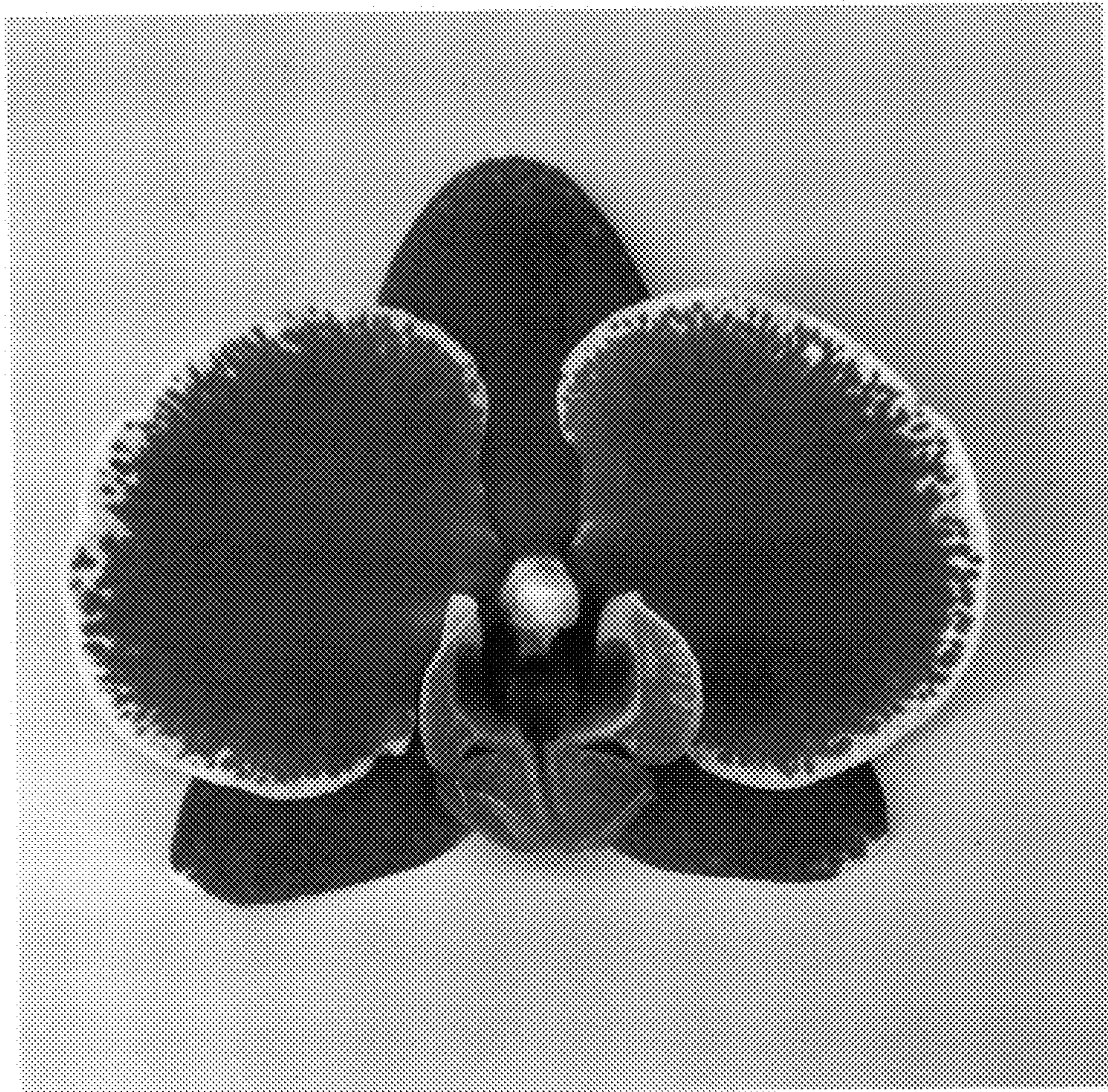


FIG. 2

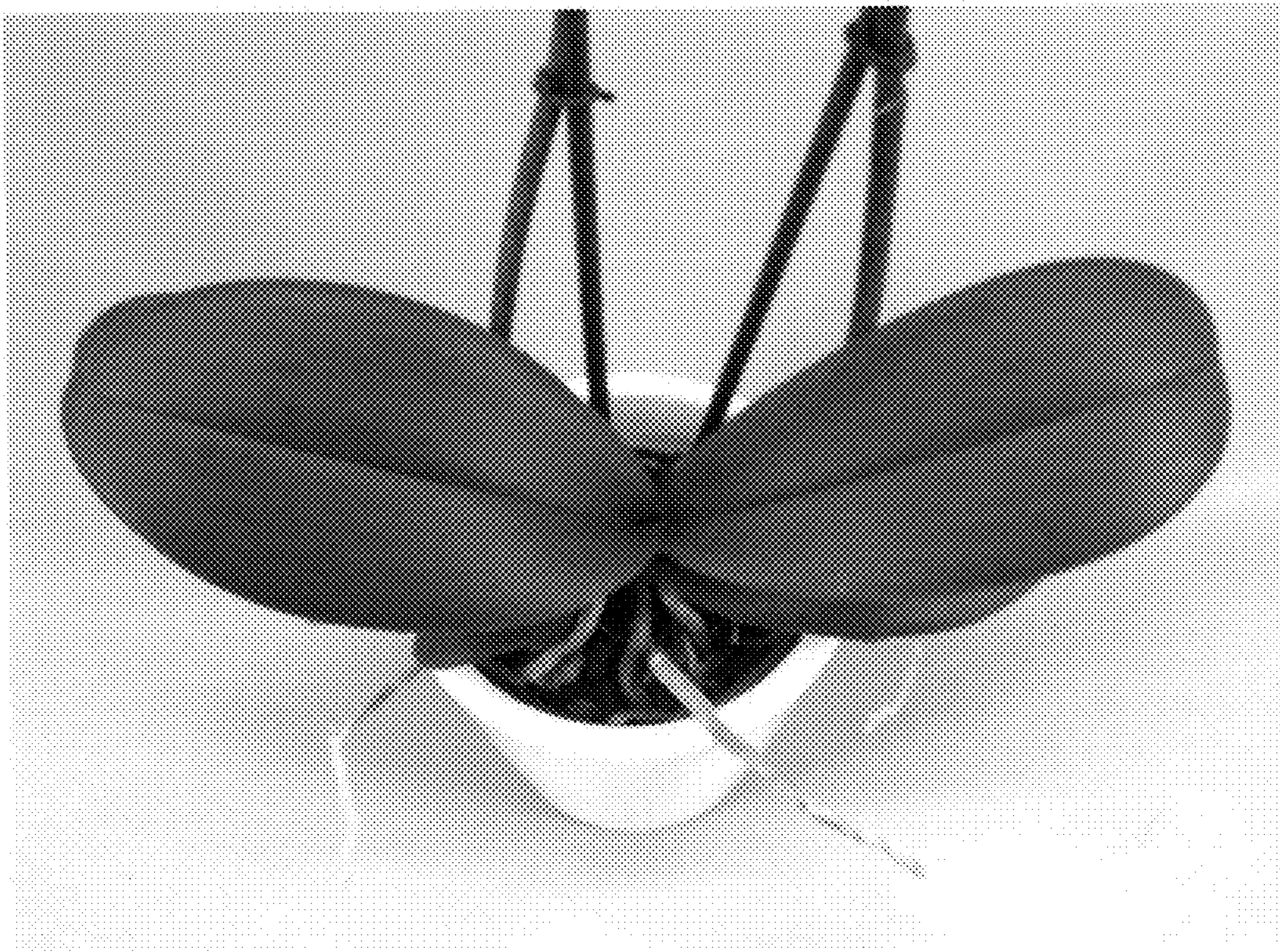


FIG. 3