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

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(54) **PHALAEOPSIS ORCHID PLANT NAMED**
'PRIMA PIANO'

(50) Latin Name: *Phalaenopsis* hybrid
Varietal Denomination: **Prima Piano**

(75) Inventor: **René Schoone**, Assendelft (NL)

(73) Assignee: **Floricultura**, Heemskerk (NL)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 128 days.

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Related U.S. Application Data

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(52) **U.S. Cl.**
CPC *A01H 5/02* (2013.01)
USPC **Plt./311**

(58) **Field of Classification Search**
CPC A01H 5/00; A01H 5/02
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See application file for complete search history.

(56) **References Cited**

PUBLICATIONS

UPOV PLUTO NL Citation for 'Prima Piano' Jun. 16, 2011.*

* cited by examiner

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(57) **ABSTRACT**

A new and distinct *Phalaenopsis* plant named 'Prima Piano' particularly characterized by flowers which are white with a violet fan-shaped mark at the base and a violet/purple label-lum; 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: 'Prima Piano'.

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims priority to U.S. Provisional application Ser. No. 61/478,787, filed Apr. 15, 2011 and Netherlands Plant Breeders' Rights Application No. OPS799, filed Apr. 15, 2011. The disclosure of both prior applications are hereby incorporated by reference in their entirety.

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 'Prima Piano'.

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.

⁵ *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 ¹⁰ often more brightly-colored than the other flower segments. Flower colors include various shades of pink, white, yellow and red-brown.

¹⁵ *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.

²⁰ The new *Phalaenopsis* 'Prima Piano' is a product of a controlled breeding program conducted by the inventors, 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 ²⁵ for packaging and shipping to the market.

The new *Phalaenopsis* 'Prima Piano' originated from a cross made by the inventor in 1998 in Strengweg, Heemskerk, The Netherlands. The female or seed parent is the *Phalaenopsis* cultivar designated 'Flare', unpatented. The male or pollen

parent is the *Phalaenopsis* cultivar designated 'Timothy Christopher', unpatented. The new *Phalaenopsis* 'Prima Piano' was discovered and selected by the inventor as a single flowering plant within the progeny of the stated cross in a controlled environment in 2006 in Strengweg, Heemskerk, The Netherlands.

Asexual reproduction of the new *Phalaenopsis* cultivar by tissue culture was first performed in November, 2006 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 asexually reproduces true-to-type.

BRIEF DESCRIPTION OF THE INVENTION

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

1. flowers which are white with a purple/violet fan-shaped mark at the base and a purple/violet labellum;
2. plant produces more than one inflorescence;
3. plants may be propagated economically and uniformly using tissue culture;
4. inflorescence is long and sturdy; and
5. relatively short, dark-green foliage.

In comparison with the parental cultivars of 'Prima Piano', the female parent 'Flare' has purple/violet with white colored flowers; the male parent 'Timothy Christopher' has white colored flowers, whereas the flowers of 'Prima Piano' are white with a purple/violet fan-shaped mark at the base.

Presently, the most commercially similar cultivars to 'Prima Piano' are the parental cultivars, to which a comparison has been provided above.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

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

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

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

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

DETAILED BOTANICAL DESCRIPTION

The new *Phalaenopsis* cultivar 'Prima Piano' 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 'Prima Piano' 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 'Prima Piano' is 27° C. during the day and at night. Then,

during the flowering phase of 'Prima Piano', the ideal growing temperature is 20-22° C. during the day and 18° C. at night. Light levels for growing 'Prima Piano' 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 'Prima Piano' 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 'Prima Piano' plants described is 12 months after potting.

Classification:

Botanical.—*Phalaenopsis* hybrid.

Parentage:

Female or seed parent.—*Phalaenopsis* cultivar designated 'Flare', unpatented.

Male or pollen parent.—*Phalaenopsis* cultivar designated 'Timothy Christopher', unpatented.

Propagation:

Type.—Tissue culture.

Rooting habit and description.—Fleshy; approximately 4 mm-7 mm wide and greyed/green (RHS 197D) and green (RHS 138A) 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 41 cm. Spread: about 49 cm.

Growth habit.—Small; green (RHS N137A) 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 racemes with flowers appear.

Foliage:

Quantity per plant.—About 8 to 12 leaves are produced before flowering.

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

Overall shape of leaf.—Oval, the tip is blunt and asymmetric.

Texture (upper and under surface).—Smooth and leathery.

Pubescence.—None.

Mature leaf length.—About 19 and 24 cm.

Mature leaf width.—About 8 cm.

Mature leaf thickness.—About 2 mm.

Mature leaf color.—Upper surface: green (RHS N137A). Under surface: yellow/green (RHS 146B).

Leaf base.—Acute.

Margin.—Entire.

Venation.—Pattern: parallel. Color of midvein: upper surface: green (RHS N137A). Under surface: yellow/green (RHS 146C).

Raceme:

Quantity per plant.—About 1 to 7.

Number of flowers per raceme.—About 5 to 13.

Length.—About 20 to 35 cm.

Diameter.—About 5 mm.

Strength.—Strong.

Aspect.—Upright.

Texture.—Glabrous and smooth.

Color.—Green (RHS 137A with RHS 137D).

Internode.—Length: about 25 to 30 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 12 mm to 16 mm. Diameter (at midpoint): about 8 mm to 15 mm. Shape: oval. Color: yellow/green (RHS 144A). Orientation: same as flowers (forward facing).

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.—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*; see FIG. 2. Size (of single bloom): Height: about 58 mm. Diameter: about 60 mm. Depth of tube: about 8 mm.

Petals.—Quantity and arrangement: three petals and three sepals that are trimerous, overlapping and arranged in 2 whorls. Petals are more pronounced than sepals. Arrangement: Inner whorl comprises 3 petals: 2 lateral petals and labellum. 2 lateral petals: Overall shape: broadly ovate and weakly cupped. Apex: oval. Margin: entire and weakly undulate. Base: broadly ovate. Length: about 30 mm. Width: about 29 mm. Texture: Upper surface: smooth and satiny. Under surface: smooth and satiny. Color (when fully opened): upper surface: main color is white (RHS NN155C). At the base there is a purple/violet mark (RHS N81C) fan-shaped. Under surface: white (RHS NN155C) with very vague purple/violet spots (RHS N81D). 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 stubs 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: oval. Length: about 15 mm. Width (not flattened): about 16 mm. Texture: Upper & under

surface: smooth and satiny. Color (when fully opened): Midlobe, upper surface: main color is purple/violet (RHS N81B). At the base yellow/orange (RHS 14B). Under surface: white in the center (RHS NN155C). Edges are purple/violet (RHS N81B) runs into RHS N81D. Also a little yellow/orange (RHS 15B). Lateral lobes, upper surface: purple/violet (RHS N81B) and red/purple (RHS 60B). At base some yellow (RHS 14B) with grey/orange (RHS 173B) and some violet/red spots and stripes (RHS 71A). Under surface: white (RHS NN155C) with some purple/violet (RHS N81B) and some grey/orange (RHS 173B). Cirrhi: about 2 mm. Color: white (RHS NN155C). Pestle (callosities): Length: about 4 mm. Width (not flattened): about 4 mm. Color: yellow (RHS 14B) with grey/orange stripes and spots (RHS 173B).

Sepals.—Arrangement: Outer whorl comprises 3 sepals. Overall shape: elliptical and weakly cupped. Margin: entire and weakly undulate. Length: about 30 mm. Width: about 22 mm. Texture: Upper and under surface: smooth and satiny. Color (when fully opened): upper surface, dorsal: Main color is white (RHS NN155C) with a view purple/violet spots near the base (RHS N81C). Lateral: white (RHS NN155C) with purple/violet spots and stripes (RHS N81C). Under surface, dorsal: white (RHS NN155C). Lateral: white (RHS NN155C) with some vague purple/violet spots and purple/violet haze (RHS N81C and RHS N81D).

Pedice.—Length: about 24 to 27 mm. Diameter: about 3 mm. Color: close to the flower green/white (RHS 157D) which runs into yellow/green (RHS 144C).

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 9 mm. Diameter: about 6 mm. Color: white (RHS NN155C).

Pollinia.—Quantity: Two. Size: about 1 mm. Color: yellow/orange (RHS 23B).

Ovary.—Length: about 4 mm. Diameter: about 6 mm. Color: white (RHS NN155C).

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 'Prima Piano', as illustrated and described herein.

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FIG. 1



FIG. 2

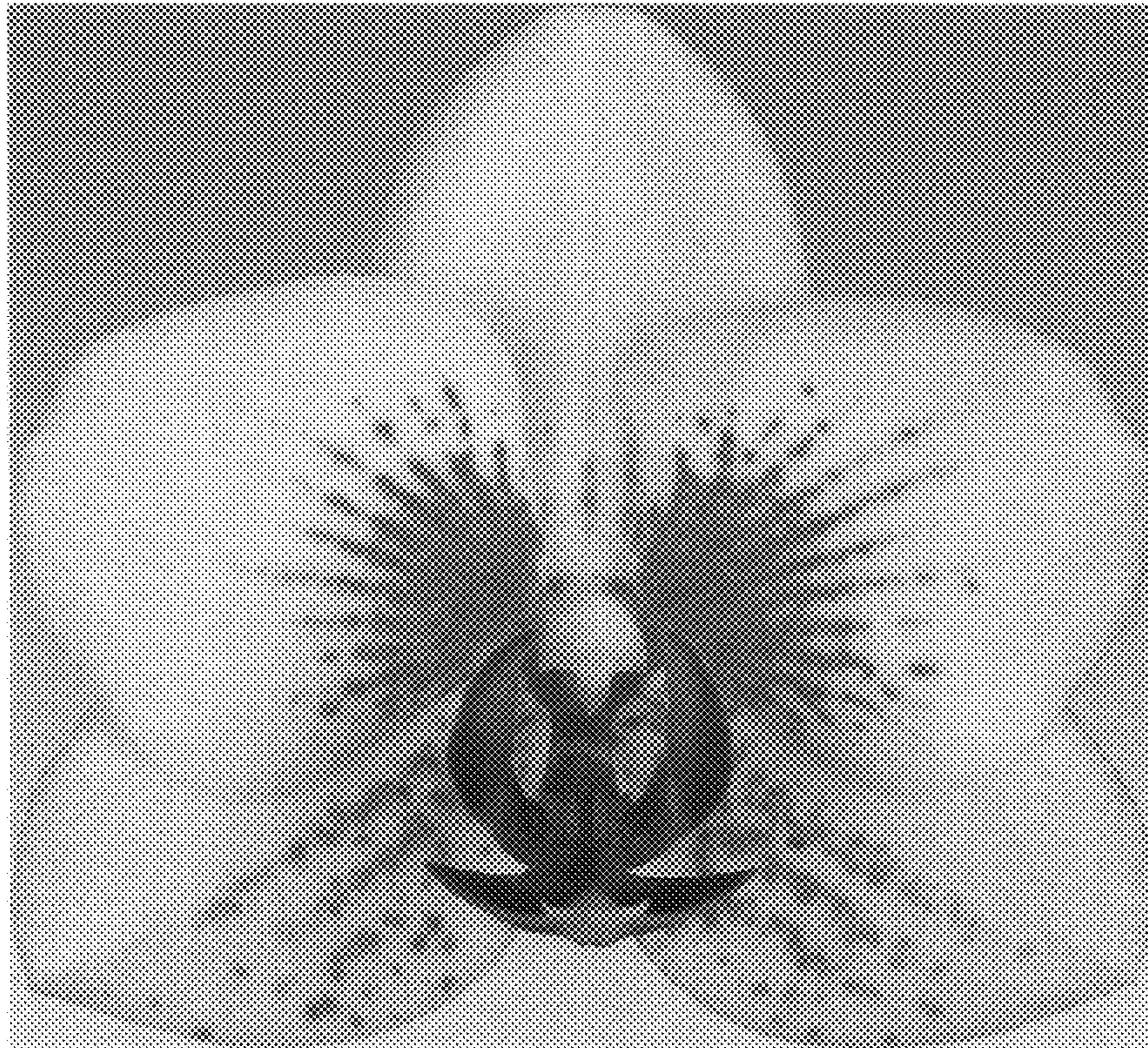


FIG. 3

