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# (12) United States Plant Patent

## Danziger

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**IMPATIENS PLANT NAMED 'DHAR321'** 

Latin Name: Impateins hawkeri×flaccida Varietal Denomination: DHAR321

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Field of Classification Search (58)

See application file for complete search history.

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#### ABSTRACT (57)

A new and distinct *Impatiens* cultivar named 'DHAR321' is disclosed, characterized by distinctive large orange flowers, good branching and sun resistance. The new variety is an *Impatiens* normally produced as an outdoor ornamental plant for containers or gardens.

### 2 Drawing Sheets

Latin name of the genus and species: *Impateins hawkeri*× flaccida.

Variety denomination: 'DHAR321'.

### BACKGROUND OF THE INVENTION

The new *Impatiens* cultivar is a product of a planned breeding program conducted by the inventor, Gavriel Danziger, in Moshav Mishmar Hashiva, Israel. The objective of the breeding program was to produce new *Impatiens* varieties for orna- $^{10}$ mental commercial applications. The cross resulting in this new variety was made during January of 2007.

The seed parent is the unpatented, proprietary variety referred to as *Impatiens* '518'. The pollen parent is the unpatented proprietary variety referred to as Impatiens '886'. The new variety was discovered in March of 2008 by the inventor in a group of seedlings resulting from the 2007 crossing, in a research greenhouse in Moshav Mishmar Hashiva, Israel.

As exual reproduction of the new cultivar 'DHAR321' by  $_{20}$ leaf cuttings was first performed at a research greenhouse in Moshav Mishmar Hashiva, Israel in March of 2008 and has shown that the unique features of this cultivar are stable and reproduced true to type in successive generations.

### SUMMARY OF THE INVENTION

The cultivar 'DHAR321' has not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment such as tempera- 30 horticultural characteristics, however 'DHAR321' has a more ture, day length, and light intensity, without, however, any variance in genotype.

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'DHAR321'. characteristics in combination distinguish 35 These 'DHAR321' as a new and distinct *Impatiens* cultivar:

- 1. Large flowers.
- 2. Orange flower color.
- 3. Good branching.
- 4. Sun resistance.

#### PARENT COMPARISON

Plants of the new cultivar 'DHAR321' are similar to plants of the seed parent, Impatiens '518' in most horticultural characteristics, however, plants of the new cultivar 'DHAR321' have more vigorous growth habit, and larger flowers.

Plants of the new cultivar 'DHAR321' are similar to plants of the pollen parent, *Impatiens* '886' in most horticultural characteristics, however, plants of the new cultivar 'DHAR321' produce orange colored flowers compared to the lavender colored flowers produced by '886'. Plants of 'DHAR321' also have a more vigorous growth habit, brighter 15 colored leaves and larger flowers than '886'.

### COMMERCIAL COMPARISON

Plants of the new cultivar 'DHAR321' are comparable to the variety *Impatiens* 'Misato FG2', U.S. Plant Pat. No. 17,663. The two *Impatiens* varieties are similar in most horticultural characteristics however, the new variety 'DHAR321' differs in having lighter colored flowers, and an overall more compact plant habit. Additionally, the new variety has larger flowers than 'Misato FG2'.

Plants of the new cultivar 'DHAR321' can also be compared to the commercial variety Impatiens 'SAKIMP011', U.S. Plant Pat. No. 19,498. These varieties are similar in most vigorous growth habit and larger flower size. Additionally, plants of 'DHAR321' produce a lighter colored flower than that of 'SAKIMP011'.

### BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photograph in FIG. 1 illustrates in full color a typical plant of 'DHAR321' grown in a greenhouse, in a 16 cm pot.

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Age of the plant photographed is approximately 14 weeks from a rooted cutting FIG. 2 illustrates in full color a close up of a typical bloom of 'DHAR321'.

The photographs were taken using conventional techniques and although colors may appear different from actual 5 colors due to light reflectance it is as accurate as possible by conventional photographic techniques.

#### DETAILED BOTANICAL DESCRIPTION

In the following description, color references are made to The Royal Horticultural Society Colour Chart 2005 except where general terms of ordinary dictionary significance are used. The following observations and measurements describe 'DHAR321' plants grown in a greenhouse during Winter and Spring in Moshav Mishmar Hashiva, Israel. The growing temperature ranged from 20° C. to 35° C. during the day and from 15° C. to 25° C. during the night. General light conditions are bright, normal sunlight. Measurements and numerical values represent averages of typical plant types.

Botanical classification: *Impatiens hawkeri*×*flaccida* 'DHAR321'.

#### **PROPAGATION**

Time to initiate roots: Summer: 10 to 12 days at approximately 25° C. Winter: 14 to 20 days at approximately 18° C.

Root description: Fibrous adventitious roots.

### PLANT

Growth habit: Mounded.

Pot size of plant described: 16 cm.

Age of plant described: Approximately 14 weeks from rooted 35 cutting.

Height: 25 cm.

Plant spread: 40 cm.

Growth rate: Vigorous.

Branching characteristics: Highly branched.

Length of primary lateral branches: 20 cm.

Quantity of primary lateral branches: 5-7.

Characteristics of primary lateral branches:

Form.—Oval shape.

Diameter.—1 cm.

Color.—Yellow Green group 147C RHS.

*Texture*.—Smooth.

Strength.—Strong, very stable.

Internode length: 6.5 cm.

### FOLIAGE

### Leaf:

Arrangement.—Alternate.

Quantity.—Approximately 20-25 per branch.

Average length.—7.5 cm.

Average width.—3.5 cm.

Shape of blade.—Lanceolate to ovate.

Apex.—Attenuate.

Base.—Acuminate.

Margin.—Ciliate.

Texture of top surface.—Smooth.

Pubescence.—None.

Aspect.—45 degrees.

Color.—Young foliage upper side: Green Group 137 B 65 RHS. Young foliage under side: Green Group 137 D

RHS. Mature foliage upper side: Yellow Green Group 147 A RHS. Mature foliage under side: Yellow Green Group 147 B RHS.

Venation.—Midrib with secondary veins. Pinnate, only lower surface. Type: Pinnate. Venation color upper side: Yellow Green Group 147 C RHS. Venation color under side: Greyed red Group 182 C RHS.

Petiole.—Length: 1 cm. Diameter: 0.3 cm. Color: Green Group 194 A RHS. Texture: Smooth.

#### **FLOWER**

Natural flowering season: Flowers at any day length. All year round in a greenhouse environment. Flowering is continuous from spring until fall in an outdoor garden.

Days to flowering from rooted cutting: 10 weeks.

Inflorescence and flower type and habit: Single flowers raised above the foliage. The corolla consists of five petals.

Rate of flower opening: 10 to 15 days from bud to fully opened flower.

Flower longevity on plant: 5-8 Days.

Persistent or self-cleaning: Self cleaning.

Bud:

Shape.—Ovate.

Length.—1.2 cm.

Diameter.—1 cm.

Color.—Orange Red Group 33 B RHS.

Flower size:

Diameter.—6.5 cm.

Depth.—5.5 cm, including spur.

Petals:

30

40

45

50

*Quantity.*—5.

Arrangement.—Rotate, overlapping.

Length.—3.2 cm.

Width.—3 cm.

Shape.—Obcordate.

Apex.—Heart Shape.

Base.—Acute.

Margin.—Entire.

Texture, upper and lower surfaces.—Smooth.

Color.—When opening, upper surface: Orange Red Group N30D RHS. When opening, lower surface: Orange Red Group 32C RHS. Fully opened, upper surface: Orange Red Group N30C RHS. Fully opened, lower surface: Orange Red Group 31B RHS.

Spurs:

Quantity per flower.—1.

Length.—5.5 cm.

Diameter.—0.1 cm.

Aspect.—Spur curvature 40°-45° from peduncle.

Color.—Towards base: Greyed Purple Group 185 C

RHS. Apex: Yellow Green Group 144 D RHS.

### Sepals:

Quantity.—2.

Length.—1.5 cm.

*Width.*—0.7 cm.

Shape (overall).—Oblong. Apex: Acute. Base: Rounded.

60 *Margin.*—Entire.

Color.—Yellow Green Group 146 C RHS.

### Peduncles:

Length.—5 cm.

Diameter.—0.1 cm.

Angle.—About 45° to the lateral branch.

Strength.—Stable, flexible.

*Texture*.—Smooth.

Color.—Yellow Green Group 146 D RHS.

Fragrance: None.

### REPRODUCTIVE ORGANS

Stamens: There are five stamens with introrse anthers that are more or less fused and form a cap over the ovary.

*Number.*—5.

Anthers:

Shape.—Oblong.

Length.—Approximately 0.4 cm.

Color.—Red Group 47 B RHS.

Pollen.—Color: White Group 155 D RHS. Quantity: 15 Many.

Pistil:

Number.—1.

*Length.*—0.5 cm.

Style.—Length: 0.5 cm. Color: Yellow Green Group 144 B RHS.

Stigma.—Shape: Round. Color: White GROUP N 155B RHS. Ovary Color: Yellow-Green group, RHS 144D RHS.

### OTHER CHARACTERISTICS

Seeds and fruits: Minute locule fruits produce 5-10 seeds per fruit.

Disease/pest resistance: Neither resistance nor susceptibility has been observed.

Temperature tolerance: Grows best at a range between 10° C.-30° C. Will tolerate moderate temperatures outside of this range.

What is claimed is:

1. A new and distinct cultivar of *Impatiens* plant named 'DHAR321' as herein illustrated and described.

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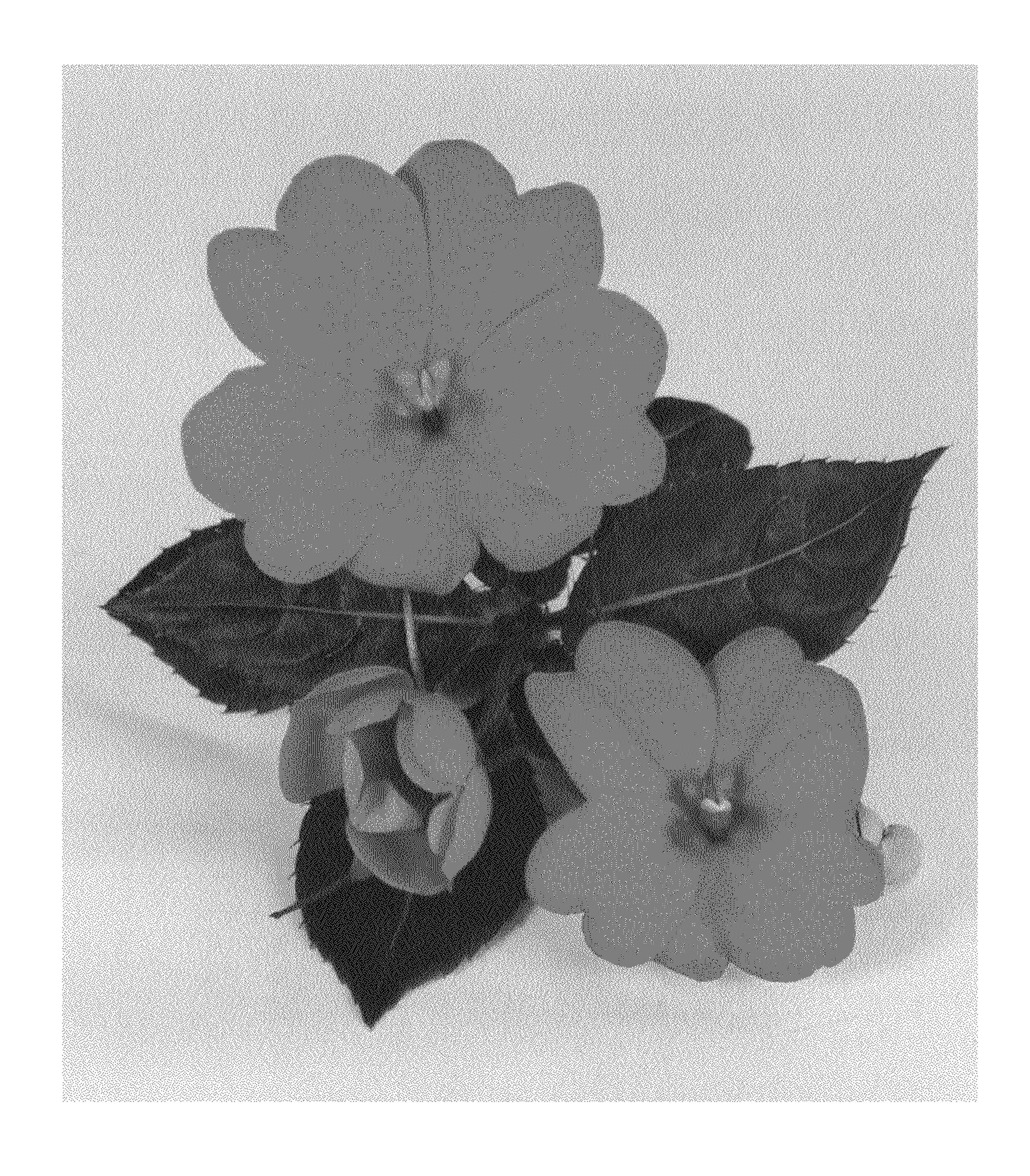


Fig. 2