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Sapia

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(54) **CARNATION PLANT NAMED ‘HILMETAL’**

(50) Latin Name: *Dianthus caryophyllus*
Varietal Denomination: **Hilmetal**

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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 92 days.

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(52) **U.S. Cl.**
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(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct cultivar of Carnation plant named ‘Hilmetal’, characterized by its upright, somewhat outwardly spreading and uniformly mounded plant habit; freely branching habit; freely flowering habit; large greyed purple-colored semi-double flowers with light pink-colored margins that are positioned above and beyond the foliar plane on strong peduncles; and good garden performance.

1 Drawing Sheet

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Botanical designation: *Dianthus caryophyllus*.
Cultivar denomination: ‘HILMETAL’.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of Carnation plant, botanically known as *Dianthus caryophyllus*, grown commercially as a potted and garden plant and hereinafter referred to by the name ‘Hilmetal’.

The new Carnation plant is a product of a planned breeding program conducted by the Inventor in Sanremo, Italy. The objective of the breeding program is to create new potted Carnation plants that have uniform plant habit and numerous unique and attractive flowers.

The new Carnation plant originated from a cross-pollination made by the Inventor in Sanremo, Italy in May, 2007 of a proprietary selection of *Dianthus caryophyllus* identified as code number H 5289, not patented, as the female, or seed, parent with a proprietary selection of *Dianthus caryophyllus* identified as code number H 6321, not patented, as the male, or pollen, parent. The new Carnation plant was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated cross-pollination in a controlled greenhouse environment in Sanremo, Italy in July, 2008.

Asexual reproduction of the new Carnation plant by terminal cuttings propagated in a controlled greenhouse environment in Sanremo, Italy since 2008 has shown that the unique features of this new Carnation plant are stable and reproduced true to type in successive generations of asexual reproduction.

SUMMARY OF THE INVENTION

Plants of the new Carnation have not been observed under all possible environmental conditions and cultural practices. The phenotype may vary somewhat with variations in environmental conditions such as temperature 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 ‘Hilmetal’.

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These characteristics in combination distinguish ‘Hilmetal’ as a new and distinct Carnation plant:

1. Upright, somewhat outwardly spreading and uniformly mounded plant habit.
2. Freely branching habit.
3. Freely flowering habit.
4. Large greyed purple-colored semi-double flowers with light pink-colored margins that are positioned above and beyond the foliar plane on strong peduncles.
5. Good garden performance.

Plants of the new Carnation differ from plants of the female parent selection in the following characteristics:

1. Plants of the new Carnation have longer branches than plants of the female parent selection.
2. Plants of the new Carnation have larger flowers than plants of the female parent selection.
3. Plants of the new Carnation and the female parent selection differ in flower color as plants of the female parent selection have light red-colored flowers.

Plants of the new Carnation differ from plants of the male parent selection in the following characteristics:

1. Plants of the new Carnation are more freely flowering than plants of the male parent selection.
2. Plants of the new Carnation have larger flowers than plants of the male parent selection.
3. Plants of the new Carnation and the male parent selection differ in flower color as plants of the male parent selection have red-colored flowers with white-colored margins.

Plants of the new Carnation can be compared to plants of *Dianthus caryophyllus* ‘Hilreal’, disclosed in U.S. Plant Pat. No. 22,408. In side-by-side comparisons conducted in De Kwakel, The Netherlands, plants of the new Carnation differed from plants of ‘Hilreal’ in the following characteristics:

1. Plants of the new Carnation were less vigorous than plants of ‘Hilreal’.
2. Plants of the new Carnation had larger flowers than plants of ‘Hilreal’.

3. Plants of the new Carnation and 'Hilreal' differed in flower color as plants of 'Hilreal' had solid red-colored flowers.

BRIEF DESCRIPTION OF THE PHOTOGRAPH

The accompanying photograph illustrates the overall appearance of the new Carnation plant showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photograph may differ slightly from the color values cited in the detailed botanical description which accurately describe the colors of the new Carnation plant.

The photograph comprises a side perspective view of a typical flowering plant of 'Hilmetal' grown in a container.

DETAILED BOTANICAL DESCRIPTION

Plants used in the aforementioned photograph and following observations and measurements describe plants grown during the late winter and early spring in 12-cm containers in a glass-covered greenhouse in De Kwakel, The Netherlands and under cultural practices which approximate those generally used in commercial potted Carnation production. During the production of the plants, day and night temperatures averaged 12° C. and light levels averaged 7,000 lux. Plants were pinched one time five weeks after planting. Plants used for the description were 20 weeks old and plants used for the photograph were 25 weeks old. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2007 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Dianthus caryophyllus* 'Hilmetal'.
Parentage:

Female, or seed, parent.—Proprietary selection of *Dianthus caryophyllus* identified as code number H 5289, not patented.

Male, or pollen, parent.—Proprietary selection of *Dianthus caryophyllus* identified as code number H 6321, not patented.

Propagation:

Type.—By terminal cuttings.

Time to initiate roots, summer.—About six days at 20° C. to 25° C.

Time to initiate roots, winter.—About eight days at 18° C.

Time to produce a rooted young plant, summer.—About three weeks at 20° C. to 25° C.

Time to produce a rooted young plant, winter.—About five weeks at 18° C.

Root description.—Medium in thickness, fibrous; white in color.

Rooting habit.—Moderate branching; medium density.

Plant description:

Plant type and form.—Herbaceous perennial; upright, somewhat outwardly spreading and uniformly mounded plant habit; broad inverted triangle.

Branching habit.—Freely-branching growth habit; when pinched, about six primary basal branches develop; dense and bushy growth habit.

Plant height.—About 16.8 cm.

Plant diameter or spread.—About 22.5 cm.

Lateral branches.—Length: About 6.9 cm. Diameter: About 3.5 mm. Internode length: About 2.1 cm. Strength: Strong. Texture: Smooth, glabrous. Color: Close to 137A.

Foliage description:

Arrangement.—Opposite, simple; sessile.

Length.—About 8.7 cm.

Width.—About 8 mm.

Shape.—Narrowly oblanceolate.

Apex.—Acute.

Base.—Attenuate, decurrent.

Margin.—Entire.

Texture, upper and lower surfaces.—Smooth, glabrous.

Venation pattern.—Parallel.

Color.—Developing leaves, upper surface: Close to 138A; towards the base, close to 144B. Developing leaves, lower surface: Close to 143A; towards the base, close to 144B. Fully expanded leaves, upper surface: Close to N137C; venation, close to N137C. Fully expanded leaves, lower surface: Close to 137C; venation, close to 143A.

Flower description:

Flower type and habit.—Rotate semi-double flowers usually arranged in terminal sprays; freely flowering habit with typically about 30 flowers developing per plant; flowers positioned above and beyond the foliar plane on strong peduncles; flowers face mostly upright.

Fragrance.—Flowers faintly fragrant; sweet, clove-like.

Natural flowering season.—Flowering is continuous through the summer and late summer in The Netherlands; plants begin flowering about 13 weeks after planting.

Flower longevity.—Flowers last about ten days on the plant; flowers not persistent.

Spray height.—About 7.8 cm.

Spray diameter.—About 7.7 cm.

Flower diameter.—About 4.3 cm.

Flower depth.—About 3.8 cm.

Flower buds.—Length: About 1.9 cm. Diameter: About 9 mm. Shape: Elliptic. Color: Close to 137A to 137B.

Petals.—Quantity and arrangement: About 17 petals per flower arranged in several whorls. Length: About 4 cm. Width: About 2.2 cm. Shape: Spatulate. Apex: Praemorse. Base: Acute. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous; velvety. Color: When opening, upper surface: Close to 187A; margins, close to 58B; towards the base, close to 60C to 60D; base, close to 145C. When opening, lower surface: Between 47A and 53D; base, close to 145B. Fully opened, upper surface: Close to 187B; margins, close to 62B to 62C; towards the base, close to 60D; base, close to 145B; color does not change with development. Fully opened, lower surface: Close to 186D; margins, close to 54C; base, close to 145B.

Sepals.—Quantity and arrangement: Five in a single whorl; proximal 70% of the sepals are fused. Length: About 2.1 cm. Width: About 7 mm. Shape: Oblong. Apex: Broadly acute. Margin: Entire. Texture, upper and lower surfaces: Smooth, glabrous. Color: When opening and fully opened, upper surface: Close to 147C; margins, close to 145B. When opening and fully opened, lower surface: Close to 137B; margins, close to 145B.

Peduncles.—Length: About 4.3 cm. Diameter: About 3 mm. Strength: Strong. Aspect: Erect to about 30° from vertical. Texture: Smooth, glabrous. Color: Close to 137B.

Reproductive organs.—Stamens: Quantity: About ten per flower. Filament length: About 2.2 cm. Filament color: Between 145D and 157A. Anther length: About 3 mm. Anther color: Close to 186C. Pollen amount: Scarce. Pollen color: Close to 158A to 158B. Pistils: Quantity: About two per flower. Pistil length: About 2.3 cm. Stigma shape: Pointed; curved. Stigma color: Close to 59D. Style length: About 1.8 cm. Style color: Close to NN155D. Ovary color: Towards the apex, close to 144A; towards the base, close to 150C. Fruits and seeds: Fruit and seed development have not been observed on plants of the new Carnation.

Disease & pest resistance: Plants of the new Carnation have not been observed to be resistant to pathogens and pests common to Carnation plants.

Garden performance: Plants of the new Carnation have been observed to have good garden performance and to tolerate wind, rain and temperatures ranging from about 5° C. to 35° C. and to be hardy to USDA Hardiness Zone 9.

It is claimed:

1. A new and distinct Carnation plant named ‘Hilmetal’ as illustrated and described.

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