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# (12) United States Plant Patent Geibel

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(54) PELARGONIUM PLANT NAMED 'PACCHOFIRE'

(50) Latin Name: *Pelargonium* x *hortorum* Varietal Denomination: **Pacchofire** 

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(57) ABSTRACT

A new and distinct Zonal Geranium plant named 'Pacchofire', characterized by its compact, upright and uniformly rounded plant habit; moderately vigorous growth habit; freely basal branching habit; medium green-colored leaves with a large dark brown-colored zonal pattern; early and freely flowering habit; and scarlet red-colored semi-double flowers that are held above the foliar plane on strong peduncles.

1 Drawing Sheet

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Botanical designation: *Pelargonium* x *hortorum*. Cultivar denomination: 'PACCHOFIRE'.

## BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of Zonal Geranium plant, botanically known as *Pelargonium* x *hortorum*, and hereinafter referred to by the cultivar name 'Pacchofire'.

The new Zonal Geranium plant is a product of a planned breeding program conducted by the Inventor in Dresden, Germany. The objective of the breeding program is to develop new uniform and early-flowering Zonal Geranium plants with dark-colored leaves and numerous attractive flowers.

The new Zonal Geranium plant originated from a cross-pollination made by the Inventor of two unidentified proprietary selections of *Pelargonium grandiflorum*, not patented, during the summer of 2016. Seed was collected from a number of potential parent plants, combined and sown. The new Zonal Geranium plant was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated mass cross-pollination in a controlled greenhouse environment in Dresden, Germany during the 25 spring of 2017.

Asexual reproduction of the new Zonal Geranium plant by vegetative terminal cuttings in a controlled greenhouse environment in Dresden, Germany since January, 2018 has shown that the unique features of this new Zonal Geranium 30 plant are stable and reproduced true to type in successive generations.

### SUMMARY OF THE INVENTION

Plants of the new Zonal Geranium have not been observed under all possible combinations of environmental conditions

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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 'Paccho-fire'. These characteristics in combination distinguish 'Paccho-fire' as a new and distinct Zonal Geranium plant:

- 1. Compact, upright and uniformly rounded plant habit.
- 2. Moderately vigorous growth habit.
- 3. Freely basal branching habit.
- 4. Medium green-colored leaves with a large dark brown-colored zonal pattern.
- 5. Early and freely flowering habit.
- 6. Scarlet red-colored semi-double flowers that are held above the foliar plane on strong peduncles.

Plants of the new Zonal Geranium can be compared to plants of the *Pelargonium* x *hortorum* 'Pacchogi', disclosed in U.S. Plant Pat. No. 29,688. In side-by-side comparisons, plants of the new Zonal Geranium differ from plants of 'Pacchogi' in the following characteristics:

- 1. Plants of the new Zonal Geranium are more compact than and not as vigorous as plants of 'Pacchogi'.
- 2. Leaves of plants of the new Zonal Geranium are somewhat smaller than leaves of plants of 'Pacchogi'.
- 3. Plants of the new Zonal Geranium have shorter and more upright peduncles than plants of 'Pacchogi'.

#### BRIEF DESCRIPTION OF THE PHOTOGRAPH

The accompanying colored photograph illustrates the overall appearance of the new Zonal Geranium 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

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botanical description which accurately describe the colors of the new Zonal Geranium plant.

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

#### DETAILED BOTANICAL DESCRIPTION

The aforementioned photograph and following observations, measurements and values describe plants grown in 19-cm containers during the spring, summer and autumn in a glass-covered greenhouse in Dresden, Germany and under cultural practices typical of commercial Zonal Geranium production. During the production of the plants, day temperatures averaged 18° C., night temperatures averaged 16° C. and light levels ranged from 15 klux to 100 klux. Plants were four months old when the photograph was taken and nine months old when the detailed description was taken. In the following detailed description, color references are made to The Royal Horticultural Society Colour Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Pelargonium* x *hortorum* 'Paccho-fire'.

Parentage:

Female, or seed, parent.—Unidentified proprietary selection of Pelargonium x hortorum, not patented.

Male or pollen parent.—Unidentified proprietary selection of Pelargonium x hortorum, not patented.

Propagation:

*Type.*—By vegetative terminal cuttings.

Time to initiate roots, summer.—About 18 days at temperatures about 20° C.

Time to initiate roots, winter.—About 22 days at temperatures about 20° C.

Time to produce a rooted young plant, summer.— About four weeks at temperatures about 20° C.

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

Root description.—Fine, fibrous; typically white in 40 color, actual color of the roots is dependent on substrate composition, water quality, fertilizers, substrate temperature and age of roots.

Rooting habit.—Freely branching; dense.

## Plant description:

Plant and growth habit.—Compact, upright and uniformly rounded plant habit; inverted triangle; densely foliated; moderately vigorous growth habit; rapid growth rate; freely basal branching habit with about three primary lateral branches each with about three secondary lateral branches developing per plant; pinching is typically not required.

Plant height, to top of umbels.—About 26 cm. Plant height, to top of foliar plane.—About 22 cm. Plant width.—About 45 cm.

Lateral branches.—Length: About 15 cm. Diameter: About 9 mm. Internode length: About 1 cm. Texture and luster: Moderately pubescent; semi-glossy. Color, developing and developed: Close to 146C.

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Leaf description:

Arrangement.—Opposite; simple.

Length.—About 4.6 cm.

Width.—About 7.3 cm.

Shape.—Rounded; roughly reniform.

Apex.—Rounded.

Base.—Cordate, open.

Margin.—Bi-crenate.

Venation pattern.—Palmate.

Texture and luster, upper and lower surfaces.—Pubescent, coriaceous; matte.

Color.—Developing and fully expanded leaves, upper surface: Towards the margins, close to 137A dominated with a large zonal pattern, close to 200A; venation, close to 200A. Developing and fully expanded leaves, lower surface: Close to 147B; venation, close to 144A.

Petioles.—Length: About 5.8 cm. Diameter: About 2 mm. Texture and luster, upper and lower surfaces: Pubescent; rough; semi-glossy. Color, upper and lower surfaces: Close to 144A.

#### Flower description:

Flower arrangement and flowering habit.—Semi-double flowers arranged in roughly hemispherical umbels arising from apical leaf axils; umbels displayed above the foliar plane on strong peduncles; flowers face mostly upright to outwardly depending on position in the umbel; freely flowering habit with about eleven open flowers per umbel and numerous umbels developing per plant during the flowering season.

Fragrance.—None detected.

Flowering season.—Early flowering habit; plants begin flowering about 75 days after planting; in the garden in Germany, flowering begins in April and continues until frost in the autumn.

Flower longevity.—Flowers last about six to ten days on the plant; umbels last about three to four weeks on the plant; flowers persistent.

Umbel height.—About 5.5 cm.

Umbel diameter.—About 10 cm.

Flower diameter.—About 4 cm.

Flower depth (height).—About 2 cm.

Flower buds.—Length: About 8 mm. Diameter: About 7 mm. Shape: Round. Texture and luster: Pubescent; matte. Color: Close to 144A.

Petals.—Quantity per flower: About six; petals slightly imbricate. Length, upper and lower petals: About 2.5 cm. Width, upper petals: About 2.1 cm. Width, lower petals: About 2.4 cm. Shape: Obovate. Apex: Rounded. Base: Cuneate. Margin: Entire; slightly undulate. Texture and luster, upper surface: Smooth, glabrous; glossy. Texture and luster, lower surface: Smooth, glabrous; semi-glossy. Color: When opening and fully opened, upper surface: Close to 42A; venation, close to 45A; color does not change with development. When opening and fully opened, lower surface: Close to 40C; venation, close to 42A; color does not change with development.

Petaloids.—To date, petaloid development has not been observed on plants of the new Pelargonium.

Sepals.—Calyx length: About 1 cm. Calyx diameter: About 1.2 cm. Quantity per flower: Five arranged in a single whorl; not fused. Length: About 1 cm. Width: About 3 mm. Shape: Lanceolate. Apex: Acute. Base: Truncate. Margin: Entire. Texture and luster, upper and lower surfaces: Pubescent; glossy. Color, upper and lower surfaces: Close to 144A.

Peduncles (umbel stems).—Length: About 11 cm. Diameter: About 4 mm. Strength: Strong. Angle:

Mostly upright to outwardly. Texture and luster: Pubescent; semi-glossy. Color: Close to 144A tinged with 165A.

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Pedicels (individual flower stems).—Length: About 2.5 cm. Diameter: About 2 mm. Strength: Moderately 5 strong; flexible. Texture and luster: Pubescent; semiglossy. Color: Close to 144A.

Reproductive organs.—Androecium: Stamen quantity per flower: About ten. Filament length: About 4 mm. Filament color: Close to 155D. Anther size: About 1 mm by 2 mm. Anther shape: Tubular. Anther color: Close to 58A. Pollen amount: Abundant. Pollen color: Close to 168A. Gynoecium: Pistil quantity per flower: One. Pistil length: About 8 mm. Stigma diameter: About 4 mm. Stigma shape: Five or six-

parted. Stigma color: Close to 50A. Style length: About 2 mm. Style color: Close to 37A. Ovary color: Close to 193A. Seeds and fruits: To date, seed and fruit development have not been observed on plants of the new Zonal Geranium.

Pathogen & pest resistance: To date, plants of the new Zonal Geranium have not been observed to be resistant to pathogens and pests common to Zonal Geranium plants.

Temperature tolerance: Plants of the new Zonal Geranium have been observed to tolerate temperatures ranging from about 0.5° C. to about 40° C.

It is claimed:

1. A new and distinct Zonal Geranium plant named 'Pacchofire' as illustrated and described.

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