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(12) United States Plant Patent Heuger

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(54) HELLEBORUS PLANT NAMED 'HF 1112'

(50) Latin Name: *Helleborus* x nigercors X Helleborus x hybridus

Varietal Denomination: **HF 1112**

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(72) Inventor: **Josef Heuger**, Glandorf (DE)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

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(51) **Int. Cl.**

A01H 5/02 (2018.01) A01H 6/72 (2018.01)

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(58) Field of Classification Search

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(57) ABSTRACT

A new and distinct cultivar of *Helleborus* plant named 'HF 1112', characterized by its upright to somewhat outwardly spreading and mounded plant habit; vigorous growth habit; dark green-colored leaflets with lighter green-colored venation; freely flowering habit; purplish pink-colored flowers; and good garden performance.

1 Drawing Sheet

1

Botanical designation: *Helleborus* x nigercors X Helleborus x hybridus.

Cultivar denomination: 'HF 1112'.

STATEMENT REGARDING PRIOR DISCLOSURES BY INVENTOR/APPLICANT

An European Community Plant Breeder's Rights application for the instant plant was filed by the Inventor/Applicant, Mr. Josef Heuger of Glandorf, Germany, on Nov. ¹⁰ 30, 2022, application number 2022/2724. Foreign priority is not claimed to this application.

The Inventor/Applicant asserts that no publications nor advertisements relating to sales, offers for sale or public distribution occurred more than one year prior to the effective filing date of this application. Any information about the claimed plant would have been obtained from a direct or indirect disclosure from the Inventor or Applicant. Inventor/Applicant claims a prior art exception under 35 U.S.C. 102(b)(1) for disclosure and/or sales prior to the filing date but less than one year prior to the effective filing date.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of *Helleborus* plant, botanically known as *Helleborus* x *nigercors* X *Helleborus* x *hybridus* and hereinafter referred to by the name 'HF 1112'.

The new *Helleborus* plant is a product of a planned breeding program conducted by the Inventor in Glandorf, Germany. The objective of the breeding program was to create new uniform *Helleborus* plants with unique and attractive plant habit, leaf and flower coloration and tolerance to biotic and abiotic stresses.

The new *Helleborus* plant originated from a cross-pollination conducted by the Inventor in Glandorf, Germany in December, 2014 of a proprietary selection of *Helleborus* x *nigercors* identified as code number P544, not patented, as the female, or seed, parent and a proprietary selection of

2

Helleborus x hybridus identified as code number O1628, not patented, as the male, or pollen, parent. The new Helleborus plant was discovered and selected by the Inventor as a single flowering plant from within the progeny of the stated cross-pollination grown in a controlled greenhouse environment in Glandorf, Germany in December, 2016.

Asexual reproduction of the new *Helleborus* plant by in vitro axillary meristem culture in a controlled environment in Glandorf, Germany since April, 2017 has shown that the unique features of this new *Helleborus* plant are stable and reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

Plants of the new *Helleborus* have not been observed under all possible combinations of 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 'HF 1112'. These characteristics in combination distinguish 'HF 1112' as a new and distinct *Helleborus* plant:

- 1. Upright to somewhat outwardly spreading and mounded plant habit.
- 2. Vigorous growth habit.
- 3. Dark green-colored leaflets with lighter green-colored venation.
- 4. Freely flowering habit.
- 5. Light purplish pink-colored flowers.
- 6. Good garden performance.

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

- 1. Plants of the new *Helleborus* are more compact than plants of the female parent selection.
- 2. Flowers of plants of the new *Helleborus* are darker purplish pink in color than flowers of plants of the female parent selection.

3

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

- 1. Leaflets of plants of the new *Helleborus* are darker green in color than leaflets of plants of the male parent selection.
- 2. Flowers of plants of the new *Helleborus* are lighter purplish pink in color than flowers of plants of the male parent selection.

Plants of the new *Helleborus* can also be compared to plants of *Helleborus* x *ericsmithii* X *Helleborus* x *hybridus* 'COSEH 4200', disclosed in U.S. Plant Pat. No. 28,297. In side-by-side comparisons, plants of the new *Helleborus* differ primarily from plants of 'COSEH 4200' in the following characteristics:

- 1. Plants of the new *Helleborus* have smaller leaves than plants of 'COSEH 4200'.
- 2. Plants of the new *Helleborus* have smaller flowers than plants of 'COSEH 4200'.
- 3. Flowers of plants of the new *Helleborus* are purplish 20 pink in color whereas flowers of plants of 'COSEH 4200' are pink in color.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new *Helleborus* plant showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photographs may differ slightly from the color values cited in the detailed 30 botanical description which accurately describe the colors of the new *Helleborus* plant.

The photograph at the left of the sheet (FIG. 1) is a side perspective view of a typical flowering plant of 'HF 1112' grown in a container.

The photograph at the right of the sheet (FIG. 2) is a close-up view of a typical flowering plant of 'HF 1112'.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations, measurements and values describe plants grown during the early spring in 17-cm containers in a glass-covered greenhouse in Glandorf, Germany and under cultural practices typical of commercial *Helleborus* production. During the production of the plants, day temperatures ranged from 12C to 32C and night temperatures ranged from 5C to 12C. Plants were 48 weeks old when the photographs were taken and 14 months old when the description was taken. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2015 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Helleborus* x nigercors X Helleborus x hybridus 'HF 1112'.

Parentage:

Female, or seed, parent.—Proprietary selection of Helleborus x nigercors identified as code number P544, not patented.

Male, or pollen, parent.—Proprietary selection of Hel- 60 leborus x hybridus identified as code number O1628, not patented.

Propagation:

Type.—In vitro axillary meristem culture.

Time to initiate roots, winter.—About 55 days at tem- 65 peratures about 12C.

Time to produce a rooted young plant, winter.—About 170 days at temperatures ranging from about 4C to 15C.

Root description.—Thick to thin, fleshy; typically white to brownish in color, actual color of the roots is dependent on substrate composition, water quality, fertilizer type and formulation, substrate temperature and physiological age of roots.

Rooting habit.—Low branching; sparse.

Plant description:

Plant and growth habit.—Herbaceous perennial; upright to somewhat outwardly spreading and mounding plant habit with flowers held above the foliar plane; plant shape, roughly flattened globular; vigorous growth habit and moderate to rapid growth rate.

Plant height, soil level to top of foliar plane.—About 24.2 cm.

Plant height, soil level to top of flowers.—About 43.7 cm.

Plant diameter (area of spread).—About 57.8 cm. Leaf description:

Arrangement.—Leaves arranged in a basal rosette; leaves palmately compound with typically five leaflets per leaf.

Leaf length.—About 21.4 cm.

Leaf width.—About 24.8 cm.

Leaflet length.—About 15.3 cm.

Leaflet width.—About 7.8 cm.

Leaf shape.—Palmate; roughly reniform in outline.

Leaflet shape.—Elliptic, broadly elliptic or obovate.

Leaflet apex.—Acute.

Leaflet base.—Attenuate.

Leaflet margin.—Serrate; slightly coarsely undulate.

Leaflet texture and luster, upper and lower surfaces.—

Smooth, glabrous; coriaceous and tough; slightly

glossy.

Leaflet venation pattern.—Pinnate and reticulate.

Leaflet color.—Developing leaflets, upper surface: Slightly darker than 143A; midvein, proximally, close to 183B. Developing leaflets, lower surface: Close to a blend of 146B and 147B; midvein, close to 183A. Fully developed leaflets, upper surface: Close to a blend of NN137A and 139A; towards the base, tinged with close to 200C to 200D; venation, close to 144B. Fully developed leaflets, lower surface: Close to a blend of 146B and 147B; venation, close to 146C.

Petioles.—Length: About 12.7 cm. Diameter: About 7.5 mm by 9 mm. Strength: Strong. Texture and luster, upper and lower surfaces: Smooth, glabrous; slightly glossy. Color, upper surface: Close to 146C; proximally, slightly tinged with close to 178A. Color, lower surface: Close to 146C.

Flower description:

55

Flower shape and habit.—Single rotate bowl-shaped flowers arranged in panicles; freely flowering habit with about 7 to 13 flowers per inflorescence and about 70 flowers and flower buds per plant; flowers face outwardly to slightly nodding.

Fragrance.—None detected.

Natural flowering season.—Plants begin flowering about ten months after planting; plants flower naturally from late winter into the spring in Germany.

10

Flower longevity on the plant.—About ten days; sepals persistent, other flower parts are not persistent.

5

Flower buds.—Length: About 2.1 cm. Diameter: About 1.7 cm. Shape: Broadly ovate. Texture and luster: Smooth, glabrous; matte. Color: Upper surface, close to a blend of N79B and N186D; lower surface, close to 185D.

Inflorescence height (including peduncle).—About 44 cm.

Inflorescence diameter.—About 22 cm.

Flower diameter.—About 6.4 cm.

Flower depth.—About 2.5 cm.

Petals.—All petals are transformed into nectaries.

Sepals.—Quantity and arrangement: About five, arranged in a single whorl. Length: About 3.4 cm. ¹⁵ Width: About 3 cm. Shape: Broadly ovate; slightly to moderately concave. Apex: Broadly and bluntly acute to close to acute/obtuse. Base: Truncate to obtuse. Margin: Entire; not undulate. Texture and luster, upper surface: Smooth, glabrous; matte. Tex- ²⁰ ture and luster, lower surface: Smooth, glabrous; matte to slightly glossy. Color: When opening, upper surface: Close to 182B and 182C; towards the base, close to 145A. When opening, lower surface: Close to a blend of 59A to 59C and 185D; venation, close 25 to 64B. Fully opened, upper surface: Close to 186C; towards the margins and apex, close to 186B; at the base, close to 145A; venation, similar to lamina colors; color does not change with subsequent development. Fully opened, lower surface: Close to a ³⁰ blend of 61A, 185C to 185D and 186C; venation, close to 64B; color does not change with subsequent development.

Flower bracts.—Quantity per flower: Typically one. Length: About 4.7 cm. Width: About 2.5 cm. Shape: ³⁵ Ovate. Apex: Narrowly acute. Base: Truncate to cuneate. Margin: Proximally, entire, and distally, finely serrate; slightly coarsely undulate. Color, upper surface: Close to NN137A to NN137B. Color, lower surface: Close to 147B; midvein, close to ⁴⁰ N186C.

Peduncles.—Length: About 39.4 cm. Diameter: About 8 mm to 11 mm. Aspect: About 20 degrees from vertical. Strength: Strong. Texture and luster: Smooth, glabrous; moderately glossy. Color: Close 45 to 144A to 144B; heavily covered with fine dots, close to 187B.

Pedicels.—Length: About 2.8 cm. Diameter: About 2 mm. Aspect: About 40 degrees from peduncle axis.

6

Strength: Moderately strong. Texture and luster: Smooth, glabrous; moderately glossy. Color: Close to 144B; moderately covered with fine dots, close to 176A.

Reproductive organs.—Stamens: Quantity per flower: About 80. Filament length: About 1.5 cm. Filament color: Close to 155A. Anther shape: Double and broadly reniform; basifixed. Anther size: About 1.75 mm by 2.5 mm. Anther color: Close to 154C. Pollen amount: Sparse. Pollen color: Close to 4D to lighter than 4D. Pistils: Quantity per flower: About six to eight. Pistil length: About 1.2 cm. Stigma diameter: About 0.3 mm. Stigma shape: Club-shaped. Stigma color: Close to 150D. Style length: About 1.15 mm. Style color: Close to 185C. Ovary color: Close to 145B; adaxial rib, slightly tinged with close to 186D. Nectaries (transformed petals): Quantity per flower: About 15 to 19. Length: About 1 cm. Diameter: About 4 mm. Shape: Tubular, flattened; apices, obtuse. Texture and luster, inner and outer surfaces: Smooth, glabrous; slightly glossy. Color, immature, inner surface: Close to 144B; towards the apex, close to 145C. Color, immature, outer surface: Close to 144B; towards the apex, close to 145C; at the base, close to 146C. Color, mature, inner surface: Close to 144A to 144B; towards the apex, close to 151C; venation, similar to lamina colors; with subsequent development, color becoming closer to 151A and towards the apex, closer to 177B. Color, mature, outer surface: Close to 144A to 144B; towards the apex, close to 151C; at the base, close to 146D; venation, similar to lamina colors; with subsequent development, color becoming closer to 151A, towards the apex, closer to 177B and at the base, closer to 151C to 151D.

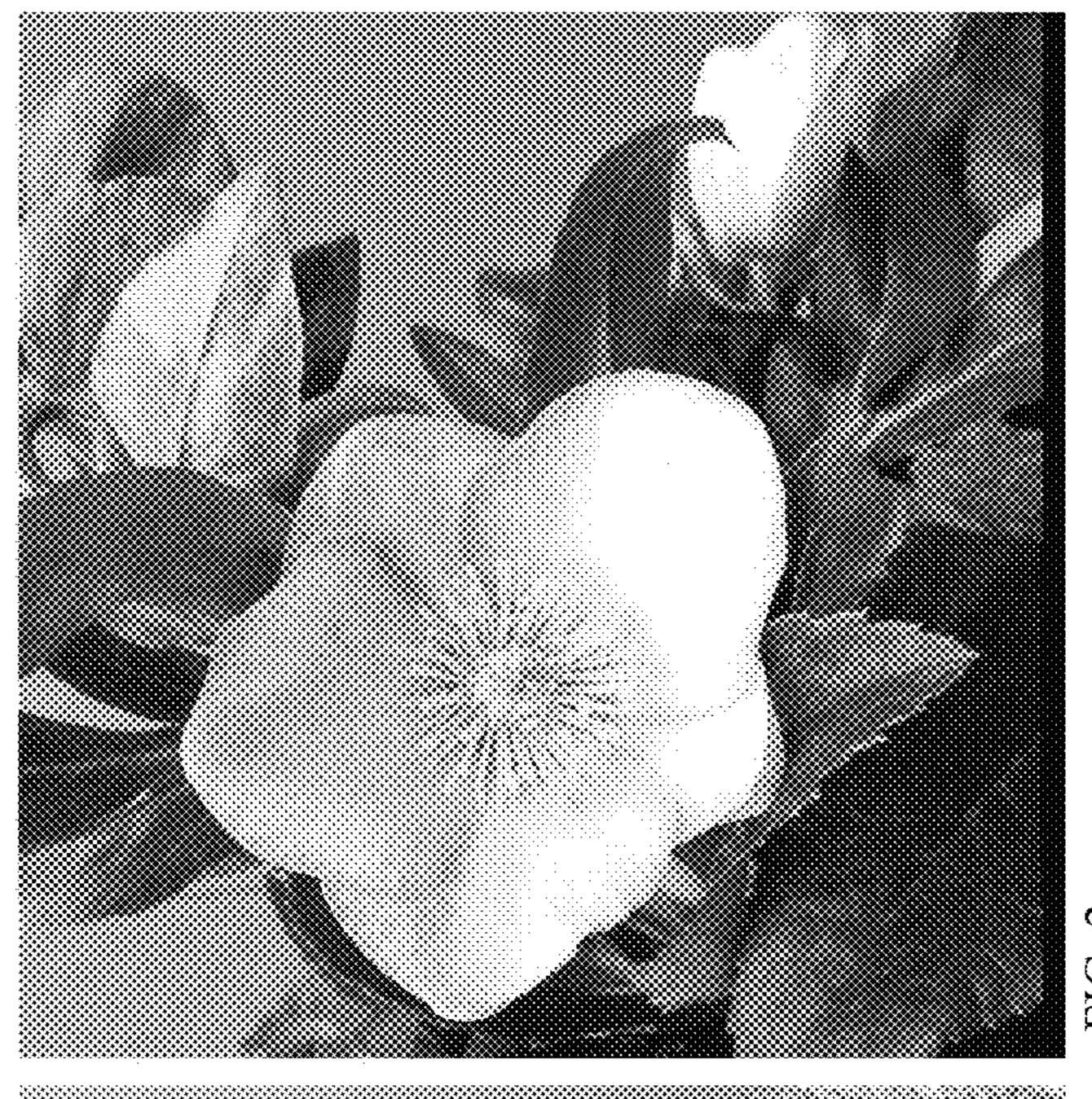
Seeds and fruits.—To date, seed and fruit development have not been observed on plants of the new *Helleborus*.

Garden performance: Plants of the new *Helleborus* have been observed to have good garden performance and to tolerate rain, wind, high temperatures about 35C and to be suitable for USDA Hardiness Zones 5 through 9.

Pathogen & pest resistance: To date, plants of the new *Helleborus* have not been observed to be resistant to pathogens and pests common to *Helleborus* plants. It is claimed:

1. A new and distinct *Helleborus* plant named 'HF 1112' as illustrated and described.

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IG. 2



FIG 1