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

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(54) ***HELLEBORUS* PLANT NAMED 'HG 1410'**

(50) Latin Name: ***Helleborus ericsmithii* X *Helleborus* x *hybridus***
Varietal Denomination: **HG 1410**

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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 0 days.

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A01H 5/02 (2018.01)
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(52) **U.S. Cl.**
USPC **Plt./439**
CPC ***A01H 6/72*** (2018.05); ***A01H 5/02*** (2013.01)

(58) **Field of Classification Search**
USPC Plt./439
CPC ... A01H 5/02; A01H 5/00; A01H 5/12; A01H 6/72
See application file for complete search history.

(56) **References Cited**

PUBLICATIONS

Allensmore Hellebore Catalogue 2023/24, retrieved on Sep. 3, 2024 at https://www.allensmore.co.uk/files/files/2023-05-12-hellebore-64634951d1bae.pdf, 12 pp. (Year: 2024).*

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(57) **ABSTRACT**

A new and distinct cultivar of *Helleborus* plant named 'HG 1410', characterized by its upright to somewhat outwardly spreading and mounded plant habit; moderately vigorous growth habit; dark green-colored leaflets with lighter green-colored venation; freely flowering habit; dark purplish red-colored flowers; and good garden performance.

1 Drawing Sheet

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

Cultivar denomination: 'HG 1410'.

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 Dec. 1, 2022, application number 2022/2737. 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 ericsmithii* X *Helleborus* x *hybridus* and hereinafter referred to by the name 'HG 1410'.

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, 2015 of a proprietary selection of *Helleborus ericsmithii* identified as code number P472, not patented, as the female, or seed, parent and a proprietary selection of *Helleborus* x *hybridus* identified as code number O1615, 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, 2017.

Asexual reproduction of the new *Helleborus* plant by in vitro axillary meristem culture in a controlled environment in Glandorf, Germany since April, 2018 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 'HG 1410'. These characteristics in combination distinguish 'HG 1410' as a new and distinct *Helleborus* plant:

1. Upright to somewhat outwardly spreading and mounded plant habit.

2. Moderately vigorous growth habit.
3. Dark green-colored leaflets with lighter green-colored venation.
4. Freely flowering habit.
5. Dark purplish red-colored flowers.
6. Good garden performance.

Plants of the new *Helleborus* differ from plants of the female 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 female parent selection.
2. Flowers of plants of the new *Helleborus* are darker purplish red in color than flowers of plants of the female parent selection.

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 lighter green in color than leaflets of plants of the male parent selection.
2. Flowers of plants of the new *Helleborus* are darker purplish red 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 flower color as flowers of plants of the new *Helleborus* are dark purplish red 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 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 'HG 1410' 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 'HG 1410'.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations, measurements and values describe plants grown during the autumn 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 12 C to 32 C and night temperatures ranged from 5 C to 12 C. 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 ericsmithii* X *Helleborus* x *hybridus* 'HG 1410'.

Parentage:

Female, or seed, parent.—Proprietary selection of *Helleborus ericsmithii* identified as code number P472, not patented.

Male, or pollen, parent.—Proprietary selection of *Helleborus* x *hybridus* identified as code number O1615, not patented.

Propagation:

Type.—In vitro axillary meristem culture.

Time to initiate roots, winter.—About 55 days at temperatures about 12 C.

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

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 slightly above the foliar plane; plant shape, roughly flattened globular; moderately vigorous growth habit and moderate growth rate.

Plant height, soil level to top of foliar plane.—About 29.6 cm.

Plant height, soil level to top of flowers.—About 39.9 cm.

Plant diameter (*area of spread*).—About 49 cm.

Leaf description:

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

Leaf length.—About 18.5 cm.

Leaf width.—About 20.9 cm.

Leaflet length.—About 12.4 cm.

Leaflet width.—About 6.3 cm.

Leaf shape.—Palmate; roughly reniform in outline.

Leaflet shape.—Elliptic to obovate; occasionally cleft.

Leaflet apex.—Acute.

Leaflet base.—Attenuate.

Leaflet margin.—Serrate; slightly to moderately coarsely undulate.

Leaflet texture and luster, upper surface.—Smooth, glabrous; coriaceous and tough; moderately glossy.

Leaflet texture and luster, lower surface.—Smooth, glabrous; coriaceous and tough; slightly glossy.

Leaflet venation pattern.—Pinnate and reticulate.

Leaflet color.—Developing leaflets, upper surface: Close to NN137B; towards the base, close to 187B. Developing leaflets, lower surface: Close to 148A strongly tinged with close to N186C; midvein, close to N186C. Fully developed leaflets, upper surface: Darker than a blend of NN137A and 147A; towards the base, strongly tinged with close to 200A; venation, close to 144A. Fully developed leaflets, lower surface: Close to 147B; venation, close to a blend of N186C and 200B.

Petioles.—Length: About 18.6 cm. Diameter: About 6 mm by 8 mm. Strength: Strong. Texture and luster, upper and lower surfaces: Smooth, glabrous; slightly

glossy. Color, upper and lower surfaces: Close to 146B; moderately to heavily covered with fine dots, close to 200B.

Flower description:

Flower shape and habit.—Single rotate bowl-shaped flowers arranged in panicles; freely flowering habit with about four to ten flowers per inflorescence and about 36 flowers and flower buds per plant; flowers face mostly outwardly to slightly nodding.

Fragrance.—None detected.

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

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

Flower buds.—Length: About 2.4 cm. Diameter: About 1.4 cm. Shape: Ovate. Texture and luster: Smooth, glabrous; matte. Color: Close to 187A to 187B; towards the base, close to 186C to 186D.

Inflorescence height (*including peduncle*).—About 37.5 cm.

Inflorescence diameter.—About 18.5 cm.

Flower diameter.—About 9.9 cm.

Flower depth.—About 3 cm.

Petals.—All petals are transformed into nectaries.

Sepals.—Quantity and arrangement: About five, arranged in a single whorl. Length: About 5.4 cm. Width: About 4.7 cm. Shape: Broadly ovate to broadly elliptic; slightly concave. Apex: Obtuse to broadly and bluntly acute. Base: Cuneate to shallowly truncate. Margin: Entire; coarsely undulate. Texture and luster, upper surface: Smooth, glabrous; matte. Texture and luster, lower surface: Smooth, glabrous; slightly glossy. Color: When opening, upper surface: Close to a blend of 59B and N186D; lighter towards the base, closer to 186C. When opening, lower surface: Close to 59A to 59B; venation, close to 187B. Fully opened, upper surface: Close to 187D; towards the margins and apex, close to 61A; towards the base, close to 186B to 186C and at the base, close to 146D; venation, similar to lamina colors; color does not change with subsequent development. Fully opened, lower surface: Close to 59B; towards the margins and apex, close to 59A; venation, close to 59A; color does not change with subsequent development.

Flower bracts.—Quantity per flower: Typically one. Length: About 10.3 cm. Width: About 6.7 cm. Shape: Ovate to broadly obovate. Apex: Acute to three-lobed. Base: Truncate to cuneate. Margin: Proximally, entire; distally, serrate; coarsely undulate. Color, upper surface: Slightly darker than a blend of 139A and 147A; towards the base, close to 144A and 146D; midvein, tinged with close to N186C. Color, lower surface: Close to 148A tinged with close to N77A; midvein, close to a blend of N186C and 200A.

Peduncles.—Length: About 30.9 cm. Diameter: About 9 mm to 11 mm. Aspect: About 15 degrees from vertical. Strength: Strong. Texture and luster: Smooth, glabrous; moderately glossy. Color: Close to 146D; heavily covered with fine dots, close to N186C.

Pedicels.—Length: About 5.8 cm. Diameter: About 3 mm. Aspect: About 25 degrees from peduncle axis. Strength: Moderately strong. Texture and luster: Smooth, glabrous; slightly glossy. Color: Close to 151B; heavily covered with fine dots, close to N186C.

Reproductive organs.—Stamens: Quantity per flower: About 100. Filament length: About 1.7 cm. Filament color: Close to 75C to 75D. Anther shape: Double and broadly reniform; basifixed. Anther size: About 1.75 mm by 3 mm. Anther color: Close to 154C. Pollen amount: Sparse to moderate. Pollen color: Close to 4D to lighter than 4D. Pistils: Quantity per flower: About five. Pistil length: About 1.25 cm. Stigma diameter: About 0.3 mm. Stigma shape: Club-shaped. Stigma color: Close to N155A. Style length: About 1.2 cm. Style color: Close to 187C. Ovary color: Close to 182D; adaxial rib, close to 187D. Nectaries (transformed petals): Quantity per flower: About 12 to 13. Length: About 1.4 cm. Diameter: About 4 mm. Shape: Tubular, flattened; apices, obtuse. Texture and luster, inner and outer surfaces: Smooth, glabrous; slightly glossy. Color, immature, inner and outer surfaces: Close to 145A; towards the apex, close to 150B; towards the base, close to 146D. Color, mature, inner and outer surfaces: Close to N144A; towards the apex, close to 150C; towards the base, close to 152B; with subsequent development, color becoming closer to 153C, towards the apex, close to 153D and towards the base, close to 152B to 152C.

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 35 C 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 'HG 1410' as herein illustrated and described.

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FIG. 2

FIG. 1