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Finn

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(54) **BLACKBERRY PLANT NAMED ‘HALL’S BEAUTY’**

(50) Latin Name: *Rubus* subg. *Rubus* Watson.
Varietal Denomination: **Hall’s Beauty**

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(57) **ABSTRACT**

A new and distinct blackberry cultivar that originated from seed produced from a cross between the female blackberry plant ‘NZ 9629R-1’ (unpatented) and the male parent blackberry plant ‘ORUS 1939-4’ (unpatented). This new blackberry cultivar can be distinguished by its very large, many petaled, and attractive flowers, medium to high yields of large and very sweet flavored berries with good firmness and color and that are early ripening, and the trailing plant is completely thornless.

4 Drawing Sheets

1

Latin name of the genus and species of the plant claimed: ‘HALL’S BEAUTY’ is a blackberry plant that is *Rubus* subg. *Rubus* Watson.

Variety denomination: The new blackberry plant claimed is of the variety denominated ‘Hall’s Beauty’ *Rubus* subg. *Rubus* Watson.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct blackberry cultivar designated ‘Hall’s Beauty’ and botanically known as *Rubus* subg. *Rubus* Watson. This new blackberry cultivar was discovered in Corvallis, Oreg. in July 2008 and originated from a cross between the female blackberry plant ‘NZ 9629R-1’ (unpatented) and the male parent blackberry plant ‘ORUS 1939-4’ (unpatented). ‘Hall’s Beauty’s spinelessness is derived from ‘Lincoln Logan’ (unpatented) that can be found as a parent four and five generations back in ‘Hall’s Beauty’s pedigree. The original seedling of the new cultivar was asexually propagated at a nursery in Benton County, Oreg. The new cultivar was established in vitro from a cane cutting and microcuttings have been taken and rooted from this sort of culture. The present invention has been found to be stable and reproduce true to type through successive asexual propagations.

SUMMARY OF THE INVENTION

The following are the most outstanding and distinguishing characteristics of this new cultivar when grown under normal horticultural practices in Oregon. 1. A high plant vigor as compared to ‘Black Diamond’ (unpatented); 2. Trailing growth habit; 3. Early date for 50% of ripe fruit compared to ‘Black Diamond’ (unpatented) and ‘Marion’

2

(unpatented); 4. Weight of fruit is heavier compared to ‘Marion’ (unpatented) and similar to ‘Columbia Star’ (U.S. Plant Pat. No. 25,532); 5. Fruit are sweeter (higher soluble solids) than ‘Black Diamond’ (unpatented), ‘Columbia Star’ (U.S. Plant Pat. No. 25,532), and ‘Marion’ (unpatented); 6. Flowers are much larger in diameter, with many more petals per flower, than those of the commercial cultivars ‘Black Diamond’ (unpatented), ‘Columbia Star’ (U.S. Plant Pat. No. 25,532), and ‘Marion’ (unpatented).

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

This new blackberry plant is illustrated by the accompanying photographs that show the flowers, fruit and entire plants; the colors shown are as true as can be reasonably obtained by conventional photographic procedures.

FIG. 1. shows an entire 3-year old plant in bloom. As is typical for commercial production, trailing primocanes are lifted from the ground in late summer and tied to a two wire trellis with the lower wire approximately 1.0 m above the ground and the upper wire approximately 1.5 m above the ground.

FIG. 2. shows a typical flowering cluster in bloom.

FIG. 3. shows typical fruiting cluster with ripe fruit ‘Hall’s Beauty’.

FIG. 4. shows an entire fruiting 4-year old plant. As is typical for commercial production, trailing primocanes are lifted from the ground in late summer and tied to a two wire trellis with the lower wire approximately 1.0 m above the ground and the upper wire approximately 1.5 m above the ground.

DETAILED DESCRIPTION OF THE NEW CULTIVAR

The following description of ‘Hall’s Beauty’ is based on observations taken from 2012 to 2016 growing seasons in

trials in Corvallis and Aurora, Oreg. This description is in accordance with UPOV terminology. Color designations, color descriptions and other phenotypical descriptions may deviate from the stated values and descriptions depending upon variation in environmental, seasonal, climatic and cultural conditions. 'Hall's Beauty' has not been observed under all possible environmental conditions. Color terminology follows The Royal Horticultural Society Colour Chart. London (R.H.S.) (5th edition, 2007).

Table 1 shows important characteristics of the new cultivar. Characteristics include plant vigor, growth habit, date of full bloom, flower diameter, number of flower petals per flower, date 50% of fruit were ripe, weight of primary fruit, soluble solids and winter tolerance in Aurora, Oreg. (45° 16' 49" N/122° 44' 50" W).

TABLE 1

Characteristic	'Hall's Beauty'
Plant vigor	High compared to 'Black Diamond'
Growth habit	Trailing
Date full bloom	5 May, early compared to 'Marion'
Flower diameter	4.87 cm (much wider than 'Black Diamond', 'Columbia Star' and 'Columbia Sunrise' (U.S. Plant Pat. No. 29,367))
Number of flower petals per flower	15.17
Date 50% of fruit were ripe	18 June (early compared to 'Black Diamond' and 'Marion')
Weight of primary fruit	6.26 g (larger than 'Marion', similar to 'Columbia Star')
Soluble solids (%; in Brix)	15.37 (higher than 'Black Diamond', 'Columbia Star', and 'Marion')
Winter tolerance in Aurora, Oregon (45° 16' 49" N/122° 44' 50" W)	Good (similar to 'Marion')

Table 2 shows floricanes and mature primocane characteristics of the new cultivar. Characteristics include diameter at base, diameter at midpoint, diameter at terminus, internode length at base, internode length at midpoint, internode length at terminus, presence of spines further than 0.6 m from the soil surface, presence of spines less than 0.6 m from the soil surface, floricanes color at base, floricanes color at midpoint, floricanes color at terminus, floricanes lateral length, floricanes lateral strength, primocane color at base, primocane color at midpoint, primocane color at terminus, floricanes length, and floricanes length (range).

TABLE 2

Characteristic	'Hall's Beauty'
Diameter at base	1.04 cm
Diameter at midpoint	0.97 cm
Diameter at terminus	0.19 cm
Internode length at base	6.82 cm
Internode length at midpoint	5.05 cm
Internode length at terminus	1.96 cm
Presence of spines further than 0.6 m from the soil surface	Absent
Presence of spines less than 0.6 m from the soil surface	Absent
Floricanes color at base	Mottled green (152A) and red (183A)
Floricanes color at midpoint	Green (152D), streaked and mottled with red (178B)
Floricanes color at terminus	Green (N144A), streaked with red (178B)
Floricanes lateral length	Medium-long
Floricanes lateral strength	Medium-strong
Primocane color at base	Green (146C)

TABLE 2-continued

Characteristic	'Hall's Beauty'
Primocane color at midpoint	Green (144A)
Primocane color at terminus	Green (147C)
Floricanes length	2.91 m
Floricanes length (range)	2.21-4.05 m

Table 3 shows primocane foliage characteristics of the new cultivar. Primocane characteristics include mature compound leaf width, mature compound leaf length, number of leaflets per primocane compound leaf, mature leaflet shape, mature leaflet apex, mature leaflet base, mature terminal leaflet width, mature terminal leaflet length, mature first lateral leaflet width, mature first lateral leaflet length, leaflet margin, leaflet serration teeth length, leaflet serration teeth width at base, spine presence on leaves, pubescence on primocane leaflet: upper surface, pubescence on primocane leaflet: undersurface, primocane leaf color abaxial, primocane leaf color adaxial, petiole length, petiole color: upper surface, petiole color: undersurface, petiolule length: terminal leaflet, petiolule length: first distal leaflet, petiolule color: abaxial, petiolule color: adaxial, stipule length, stipule width, and stipule attitude.

TABLE 3

Characteristic	'Hall's Beauty'
Mature compound leaf width	21.22 cm
Mature compound leaf length	18.18 cm
Number of leaflets per primocane compound leaf	5.00
Mature leaflet shape	Compound, odd-pinnate. Terminal leaflet often 3-lobed
Mature leaflet apex	Broadly acute
Mature leaflet base	Cordate
Mature terminal leaflet width	10.80 cm
Mature terminal leaflet length	11.57 cm
Mature first lateral leaflet width	6.97 cm
Mature first lateral leaflet length	9.70 cm
Leaflet margin	Doubly serrate
Leaflet serration teeth length	0.23 cm
Leaflet serration teeth width at base	0.21 cm
Spine presence on leaves	No
Pubescence on primocane leaflet: upper surface	Yes, light
Pubescence on primocane leaflet: undersurface	Yes, light
Primocane leaf color abaxial	Green (137B)
Primocane leaf color adaxial	Green (138B)
Petiole length	6.67
Petiole color: upper surface	Green (138B)
Petiole color: undersurface	Green (144B)
Petiolule length: terminal leaflet	2.41 cm
Petiolule length: first distal leaflet	1.15 cm
Petiolule color: abaxial	Green (138B) with blush of red (178A)
Petiolule color: adaxial	Green (144C)
Stipule length	1.53 cm
Stipule width	0.17 cm
Stipule attitude	Very erect and parallel to stem, crossed

Table 4 shows floricanes foliage characteristics of the new cultivar. Floricanes characteristics include mature compound leaf width, mature compound leaf length, number of leaflets per floricanes compound leaf, mature leaflet shape, mature leaflet apex, mature leaflet base, mature terminal leaflet width, mature terminal leaflet length, mature first lateral leaflet width, mature first lateral leaflet length, leaflet mar-

gin, leaflet serration teeth length, leaflet serration teeth width at base, pubescence on florican leaflet: upper surface, pubescence on florican leaflet: undersurface, florican leaf color abaxial, florican leaf color adaxial, petiole length, petiolule length: terminal leaflet, petiolule length: first distal leaflet, petiolule color: abaxial, petiolule color: adaxial, stipule length, and stipule width.

TABLE 4

Characteristic	'Hall's Beauty'
Mature compound leaf width	10.17 cm
Mature compound leaf length	9.50 cm
Number of leaflets per florican compound leaf	2-5, typically 3
Mature leaflet shape	Ovate
Mature leaflet apex	Broadly acuminate
Mature leaflet base	Ovate
Mature terminal leaflet width	4.62 cm
Mature terminal leaflet length	6.32 cm
Mature first lateral leaflet width	4.23 cm
Mature first lateral leaflet length	5.97 cm
Leaflet margin	Doubly serrate
Leaflet serration teeth length	0.22 cm
Leaflet serration teeth width at base	0.31 cm
Pubescence on florican leaflet: upper surface	Yes, light and short
Pubescence on florican leaflet undersurface	Yes, medium density, short
Florican leaf color abaxial	Green (137C)
Florican leaf color adaxial	Green (147B)
Petiole length	6.30 cm
Petiole color adaxial	Green (144B)
Petiole color abaxial	Green (144C)
Petiolule length terminal leaflet	2.03 cm
Petiolule length first distal leaflet	2.37 cm
Petiolule color abaxial	Green (144B)
Petiolule color adaxial	Green (144C)
Stipule length	1.00 cm
Stipule width	0.09 cm

Table 5 shows flower and flowering characteristics of the new cultivar. Flower and flowering characteristics include date 1st bloom, date full bloom, date last bloom, petal color, number flowers per cluster, number of petals per flower, flower diameter, petal length, petal width, and number of sepals per flower.

TABLE 5

Characteristic	'Hall's Beauty'
Date 1st bloom	28-Apr
Date full bloom	5-May
Date last bloom	19-May
Petal color	White (NN155C)
Number flowers per cluster	6.50
Number of petals per flower	15.17
Flower diameter	4.87 cm
Petal length	2.10 cm
Petal width	1.60 cm
Number of sepals per flower	5.00 cm
Peduncle length	11.32 cm
Rachis length	5.73 cm
Peduncle color	Green (146C), sometimes flushed with red (173A to 182A)
Cyme type	Elongate simple cyme

Table 6 shows fruit and fruiting characteristics of the new cultivar. Fruit and fruiting characteristics include date 5% of fruit were ripe, date 50% of fruit were ripe, date 95% of fruit were ripe, weight of primary fruit, weight of secondary fruit, diameter of primary fruit at equator, diameter of 2° fruit at

equator, diameter of 1° fruit at poles: tip, diameter of 1° fruit at poles: base, diameter of 2° fruit at poles: tip, diameter of 2° fruit at poles: base, berry length 1° fruit, berry length 2° fruit, ratio of primary fruit length to width, shape description, uniformity of berry shape, color when full ripe, number of drupelets per fruit, individual seed weight, glossiness, firmness, flavor, texture of fruit when chewed, drupelet skin resistance to abrasion, ease of separation of fruit from pedicel, machine harvestability, resistance to heat damage of fruit, berries per inflorescence—mean, berries per inflorescence range, soluble solids (%; in Brix), pH, titratable acidity (% as citric acid), and yield (actual kg·plt⁻¹).

TABLE 6

Characteristic	'Hall's Beauty'
Date 5% of fruit were ripe	15 June
Date 50% of fruit were ripe	19 June
Date 95% of fruit were ripe	6 July
Weight of primary fruit	6.26 g
Weight of secondary fruit	5.58 g
Diameter of primary fruit at equator	1.75 g
Diameter of 2° fruit at equator	1.73 cm
Diameter of 1° fruit at poles: tip	1.05 cm
Diameter of 1° fruit at poles: base	1.51 cm
Diameter of 2° fruit at poles: tip	1.07 cm
Diameter of 2° fruit at poles: base	1.57 cm
Berry length primary fruit	3.10 cm
Berry length 2° fruit	2.87 cm
Ratio of primary fruit length to width	1.78
Shape description	Conical
Uniformity of berry shape	Excellent
Color when full ripe	Black (203C)
Number of drupelets per fruit	91.17
Total seed weight per fruit	180.5 mg
Individual seed weight	1.99 mg
Glossiness	Medium
Firmness	Moderate
Flavor	Excellent, sweet
Texture of fruit when chewed	Excellent
Drupelet skin resistance to abrasion	Very good
Ease of separation of fruit from pedicel	Easy
Machine harvestability	Excellent
Resistance to heat damage of fruit	Good
Berries per inflorescence - mean	6.78
Berries per inflorescence range	6-8
Soluble solids (%; in Brix)	15.37
pH	3.26
Titratable acidity (% as citric acid)	12.47
Yield (actual kg · plt ⁻¹)	7.72
Disease response	Under a typical, minimal, disease management program does not exhibit any particular disease problems

COMPARISON WITH PARENTAL AND COMMERCIAL CULTIVARS

'Hall's Beauty' differs from the female parent 'NZ 9629R-1' (unpatented) in that 'Hall's Beauty' has large-sized, glossy, fruit (6.3 g), while 'NZ 9629R-1' has slightly pubescent fruit that are smaller (4.5 g).

'Hall's Beauty' differs from the male parent blackberry plant 'ORDS 1939-4' (unpatented) in that it is spineless, has conic, glossy and sweet berries and moderate to high yields, while 'ORDS 1939-4' (unpatented) is spiny and has barrel shaped pubescent berries, and moderate yields.

'Hall's Beauty' flowers are much larger in diameter, with many more petals per flower, than those of the commercial cultivars 'Black Diamond' (unpatented), 'Columbia Star' (U.S. Plant Pat. No. 25,532) and 'Marion' (unpatented).

‘Hall’s Beauty’ differs from ‘Marion’ (unpatented) in that ‘Hall’s Beauty’ is spineless, early ripening and has medium-large (6.3 g), firm fruit while ‘Marion’ (unpatented) is spiny and ripens the crop in midseason and has medium yields of medium sized (5.0 g) and soft fruit that are unevenly shaped. ‘Hall’s Beauty’ differs from the commercial cultivar ‘Black Diamond’ (unpatented) in that ‘Hall’s Beauty’ carries the ‘Lincoln Logan’ (unpatented) source of spinelessness and therefore the canes are completely spineless and the plants are vigorous with medium-large (6.3 g) fruit that are an excellent, sweet, aromatic flavor, while ‘Black Diamond’ (unpatented) carries the ‘Austin Thornless’ (unpatented) source of spinelessness and so has spines on the base of the canes and the plants are not vigorous and they produce smaller (5.2 g) fruit with a mild flavor. ‘Hall’s Beauty’ further differs from the commercial cultivars ‘Black Dia-

mond’ (unpatented), ‘Marion’ (unpatented) and ‘Columbia Star’ (U.S. Plant Pat. No. 25,532) based on having sweeter (high soluble solids) fruit.

‘Hall’s Beauty’ is primarily suited to the machine-harvested, processed-fruit market but is also firm enough for fresh market sales and the large, attractive flowers make it a potential ornamental for homeowners.

I claim:

1. A new and distinct cultivar of blackberry plant, substantially as illustrated and described, characterized by its very large, many petaled, and attractive flowers, medium to high yields of large and very sweet flavored berries with good firmness and color and that are early ripening, and the trailing plant is completely thornless.

* * * * *



Fig. 1



Fig. 2



Fig. 3



Fig. 4