

US00PP31773P3

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

(10) **Patent No.:** **US PP31,773 P3**
(45) **Date of Patent:** **May 19, 2020**

(54) **STRAWBERRY PLANT NAMED ‘RIKAS FNM’**

(50) Latin Name: *Fragaria x ananassa*
Varietal Denomination: **Rikas FNM**

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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.

(21) Appl. No.: **15/998,037**

(22) Filed: **Jun. 19, 2018**

(65) **Prior Publication Data**

US 2019/0037752 P1 Jan. 31, 2019

(30) **Foreign Application Priority Data**

Jul. 26, 2017 (ES) PBR 20175320

(51) **Int. Cl.**
A01H 5/08 (2018.01)
A01H 6/74 (2018.01)

(52) **U.S. Cl.**
USPC **Plt./209**

CPC *A01H 6/7409* (2018.05)
(58) **Field of Classification Search**
USPC Plt./209
CPC *A01H 5/08*; *A01H 5/0893*; *A01H 5/0831*;
A01H 6/74; *A01H 6/7409*
See application file for complete search history.

(56) **References Cited**

PUBLICATIONS

International Code of Nomenclature for Cultivated Plants Ninth Edition 2016, retrieved on May 21, 2019, retrieved from the Internet at https://www.ishs.org/sites/default/files/static/ScriptaHorticulturae_18.pdf, cover page, ii-iv and 29. (Year: 2016).*
Upov Pluto Plant Variety Database May 13, 2019, retrieved on May 13, 2019, retrieved from the Internet at www3.wipo.int/pluto/user/en/index.jsp, 2 pp. (Year: 2019).*

* cited by examiner

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(57) **ABSTRACT**

The present invention provides a new and distinct strawberry plant designated as ‘Rikas FNM’, which originate from seed produced by manual cross between ‘E64’ and ‘86N’. The new strawberry is a day-neutral with a long, conical, glossy and a light red color fruit. This new strawberry is characterized by a fruit of excellent quality, long shelf-life and high value of Brix degrees.

5 Drawing Sheets

1

Botanical designation: *Fragaria x ananassa* Duchesne.
Varietal denomination: ‘Rikas FNM’.

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims priority to, and the benefit of the Spanish Plant Breeder’s Right (PBR) Application No. 20175320, filed on Jul. 26, 2017, titled “Oficina Española de Variedades Vegetales”, directed to the strawberry variety in the present application (named as ‘A13-27N-3’ in the PBR application), which is herein incorporated by reference in its entirety.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct day-neutral strawberry variety designated as ‘A13-27N-3’ by the breeder, and later named ‘Rikas FNM’.

‘Rikas FNM’ was created in a breeding program and is the result of a controlled-cross between the experimental short day female parent designated ‘E64’ and day-neutral experimental selection ‘86N’, made by the Inventor and was first fruited in Gibrleón, (Huelva, Spain) growing fields. From the beginning and during testing, the plant was designated ‘A13-27N-3’.

2

This new variety was asexually reproduced via runners (stolons) by the inventor at Gibrleón, Huelva, Spain. Asexual propagules from the original source have been tested in Gibrleón, Moguer and Palos de la Frontera (Huelva, Spain) growing fields and to a limited extent, grower fields in high elevation in Arevalo, Avila, Spain. The properties of this variety were found to be transmissible by such asexual reproduction. This cultivar is stable and reproduces true to type in successive generations of asexual reproduction.

SUMMARY OF THE INVENTION

The present invention relates to a new and distinct strawberry variety. The varietal denomination of the new variety is ‘Rikas FNM’. Among the characteristics which are believed to distinguish the new variety from other varieties are a combination of traits which include the day length that is a day neutral; the plant growth habit it is upright and open with light density of foliage; the vigour of the plant is high, the inflorescence appears at level with the foliage; the fruit color is light red, the fruit is very sweet, conical-shaped, very firm, medium size fruit and long shelf-life.

BRIEF DESCRIPTION OF THE DRAWING

The accompanying color photographs and traits show typical specimens of the new cultivar at various stages of

development as nearly true as it is possible to make in color reproductions. The pictures were taken during in April in Huelva, Spain.

FIG. 1 shows overall plant habit including fruit at various stages of development.

FIG. 2 shows leaves of the plant with three leaflets.

FIG. 3 shows the upperside of several flowers.

FIG. 4 shows the whole fruit.

FIG. 5 shows the fruit in longitudinal cross-section.

DETAILED DESCRIPTION OF THE INVENTION

This invention relates to a new and distinctive day-neutral variety named 'Rikas FNM'. 'Rikas FNM' produces fruit regardless of the day length when cultivated appropriately in temperate climates.

This cultivars is primarily adapted to the climate and growing conditions of the South of Spain (Huelva)

'Rikas FNM' is a vigorous plant, upright and open which facilitates the fruit harvesting. It produces long and mainly unbranched peduncles. 'Rikas FNM' produces a fruit of medium size, with a long conical shape, a light red color and a glossy fruit. The fruit has an excellent quality, the firmness is high and has a high value of Brix degrees. The fruit of 'Rikas FNM' has an excellent taste and appearance. Also noteworthy in the new variety 'Rikas FNM' is the great shelf-life that the fruit presents due to its firm flesh together with achenes level with the flesh and skin very resistant to bruising. 'Rikas FNM' produces a moderate amount of stolons which facilitates its multiplication.

'Rikas FNM' is moderately resistant to the most frequent diseases in Huelva (Spain). Specifically, it is moderately resistant to powdery mildew (*Podosphaera macularis*), Verticillium wilt (*Verticillium dahliae*) and Phytophthora crown rot (*Phytophthora cactorum*). 'Rikas FNM' is relatively tolerant to pests such as aphids and spider mites.

The results of production and Brix degrees of the variety 'Rikas FNM' compared to the variety 'San Andreas' (U.S. Plant Pat. No. 19,975) are shown below (Table 1). The results that are shown come from a trial located in Gibrleón (Huelva, Spain). Trial was a randomized complete block design with three repetitions and 40 plants per plot. The planting date was Oct. 20, 2016 and was cultivated until May 25, 2017. It was cultivated under standard conditions of strawberry cultivation in Huelva, Spain.

TABLE 1

Variety	Avg. Yield	1st Quality	Early Yield	Brix	P. Mildew
Rikas FNM	1002	86	420	9, 7	3, 3
San Andreas	772	84	341	8, 8	3, 1
LSD(5%)	196	4	103	1, 0	0, 2
LSD(1%)	265	5	140	1, 3	0, 2

Table 1. Fruit production and Brix degrees data of the new variety 'Rikas FNM' and 'San Andreas'. Each value is the result of the average of three repetitions of 40 plants. Avg. Yield, total commercial yield in grams by plant; 1st Quality, percentage of first class fruit; Early Yield, early production (before March 31) in grams by plant; brix, Brix degrees; P. Mildew, powdery mildew (*Sphaerotheca macularis*) resistance score, 5 the best. LSD(5%) and LSD(1%) Least Significant Difference between the means at $P \leq 0.05$ and 0.01 respectively.

The fruit of 'Albion' has clear differences with respect to the fruit of the new variety 'Rikas FNM'. The variety 'Albion' shows a fruit with a darker red, a larger fruit and the more sunken achenes than the fruit of the variety 'Rikas FNM'.

The following traits in combination distinguish strawberry variety 'Rikas FNM' from known strawberry varieties ("Table 1", "Table 2. General", "Table 3. Leaf", "Table 4. Petiole, the bract, and the stipule", "Table 5. Inflorescence", "Table 6. Runner (Stolon)" and "Table 7. Fruit"). We use as standard variety for comparison 'Albion' (U.S. Plant Pat. No. 16,228). The traits were measured in Huelva (Spain), in April 2017. When we made the measurements, the plant was 6 months old. Fresh bare root plants were used for planting in October 2016. Plants for the botanical measurements in the present application were grown as annuals. Any color references are made to The Royal Horticultural Society Color Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used.

TABLE 2

General		
Characteristic	Rikas FNM	Albion
Plant Growth Habit)	Upright	Semi-upright
Day length	Neutral	Neutral
Density of foliage	Light	Medium
Plant vigor	High	Moderate
Average plant height	20.6 cm	
Average plant spread	29.8 cm	

TABLE 3

Leaf		
Characteristic	Rikas FNM	Albion
Terminal leaflet length/width ratio	1.07	1.20
Leaf average length	15.4 cm	
Leaf average width	16.8 cm	
Glossiness	Medium	
Leaf color upper side	141A to 141B	
Leaf color lower side	138B to 139C	
Leaf apex shape	Rounded	
Leaf base shape	Obtuse	
Leaf blistering	Medium	Weak
Terminal Leaflet margin	Serrate to crenate	Crenate

TABLE 4

Petiole, the bract, and the stipule		
Characteristic	Rikas FNM	Albion
Petiole length (cm)	19	17
Petiole diameter (cm)	0.33	0.42
Petiole pose of hairs	Outwards	Slightly Outwards
Petiole color (color code)	RHS: N144C	RHS: N144A
Stipule length (cm)	2.3	2.7
Stipule width (cm)	0.6	1.0
Stipule pubescence	Weak	Weak
Stipule anthocyanin presence or absence	Absence	Absence
Stipule color (color code)	RHS: 149C	RHS: N144C
Pedicel color (color code)	RHS: 144C	RHS: 144A
Attitude of hairs on petiole and pedicel	Upwards	Slightly Upwards

TABLE 5

Inflorescence		
Characteristic	Rikas FNM	Albion
Inflorescence position relative to foliage	Even	Below
Petal spacing (e.g., overlapping etc.)	Overlapping	Touching
Petal number per flower	5	6
Upper and lower Petal color (color code)	RHS: NN155D	RHS: NN155D
Peduncle size	Long	Medium
Flower diameter	2.4 cm	2.8 cm
Calyx diameter relative to corolla	Much larger	Much larger
Sepal shape (e.g., Elliptical, etc.)	Elliptical	Elliptical
Sepal margin (e.g., entire, etc.)	Entire	Entire
Sepal number per flower	12	10
Number of stamen	24	28
Anther color (color code)	RHS: 2A	RHS: 2A
Time of flowering	November 30th	November 30th
Shape and color of stigma	Yellow	Orange
Color and length of style	Yellow, 1.9 mm	Green, 1.2 mm
Color of the ovary	Green	White
Shape, size and color of anther	Oval, 1.9 mm, Yellow	Oval, 2.1 mm, Yellow
Color and amount (scarce, moderate or abundant) of pollen	Yellow, Abundant	Yellow, Abundant
Length and color of filament	3.3 mm, Green	4.2 mm, Green

TABLE 6

Runner (Stolon)		
Characteristic	Rikas FNM	Albion
Stolon anthocyanin (color code)	RHS: N144D	RHS: N144B
Stolon pubescence	Sparse	Medium
Stolon color (color code)	RHS: 149B	RHS: N144C

TABLE 7

Fruit		
Characteristic	Rikas FNM	Albion
Fruiting truss length	11 cm	7 cm
Number of fruit per truss	3	6
Truss color	RHS: 144A	RHS: N144A
Fruit length (cm)	4.2	4.2
Fruit width (cm)	3.6	3.6
Fruit skin color (color code)	RHS: 33A	RHS: 34A
Fruit flesh color excluding core	RHS: 33C	RHS: N25A
Fruit length/width ratio	1.2	1.2
Fruit weight (g)	28	28
Relative fruit size	Medium	Large
Predominant fruit shape	conical	conical
Position of achenes	even	below
Achene color (color code)	RHS: 9A	RHS: 11A
Diameter of calyx (cm)	3.6	3.9
Color of calyx (color code)	RHS: 143A	RHS: 141A
Color of the flesh	Light Red	Medium Red
Distribution of flesh color	Uniform	Some white center
Sweetness (by brix)	9.3	7.4
Type of bearing	day neutral	day neutral
Firmness	Firm	Medium
Storage Longevity	10-12 days	8-10 days
Fruit evenness of surface	Even	Even
Width of band without achenes	Absent or very narrow	Absent or very narrow
Adherence of calyx to fruit	Medium	Medium
Color Core	Light red (RHS: 33B)	Light red (RHS: 23H)
Cavity Size	Small	Medium

The invention claimed is:

35 1. A new and distinct cultivar of strawberry plant having the characteristics substantially as described and illustrated herein.

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FIG. 1



FIG. 2



FIG. 3



FIG. 4

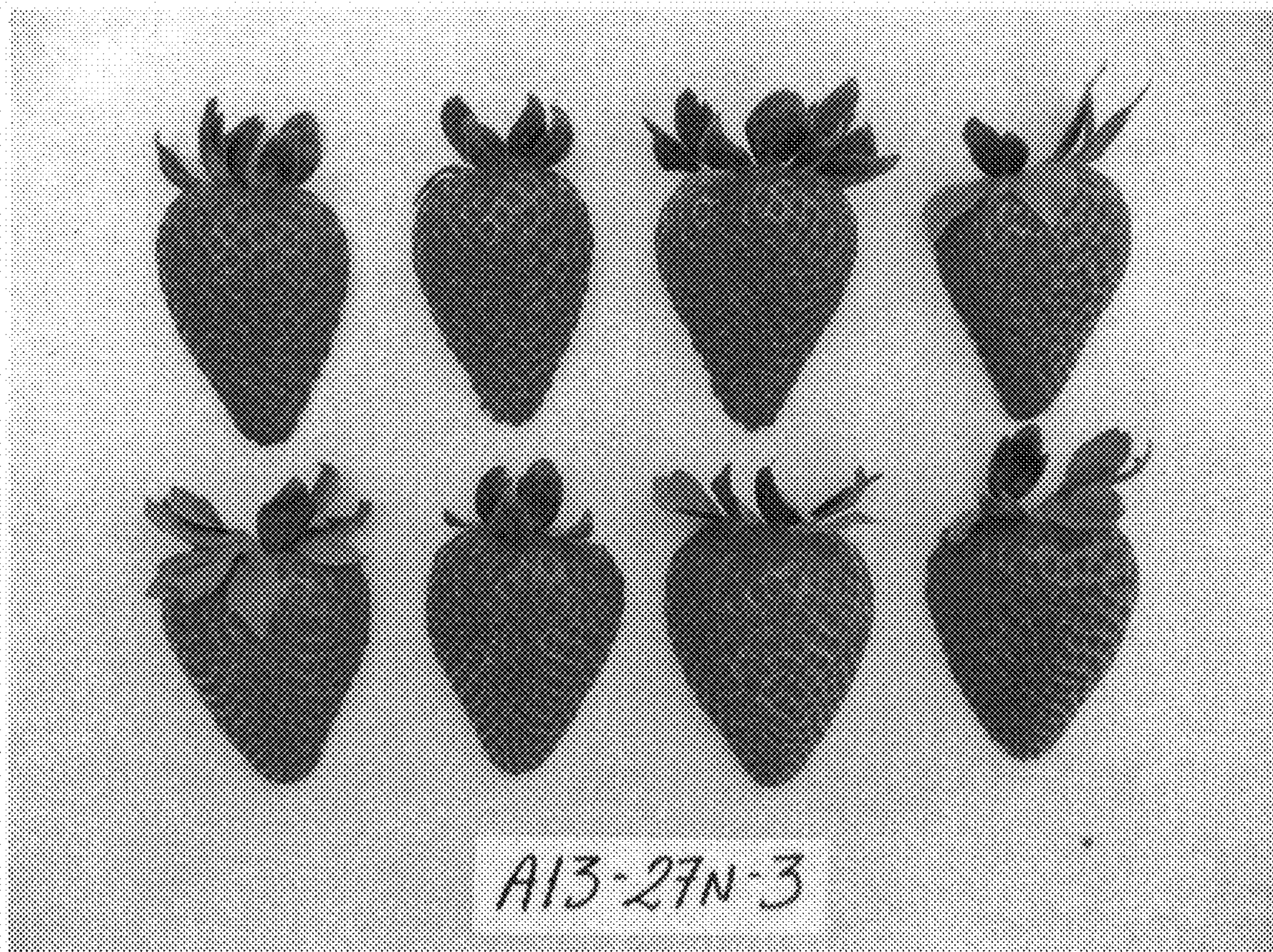
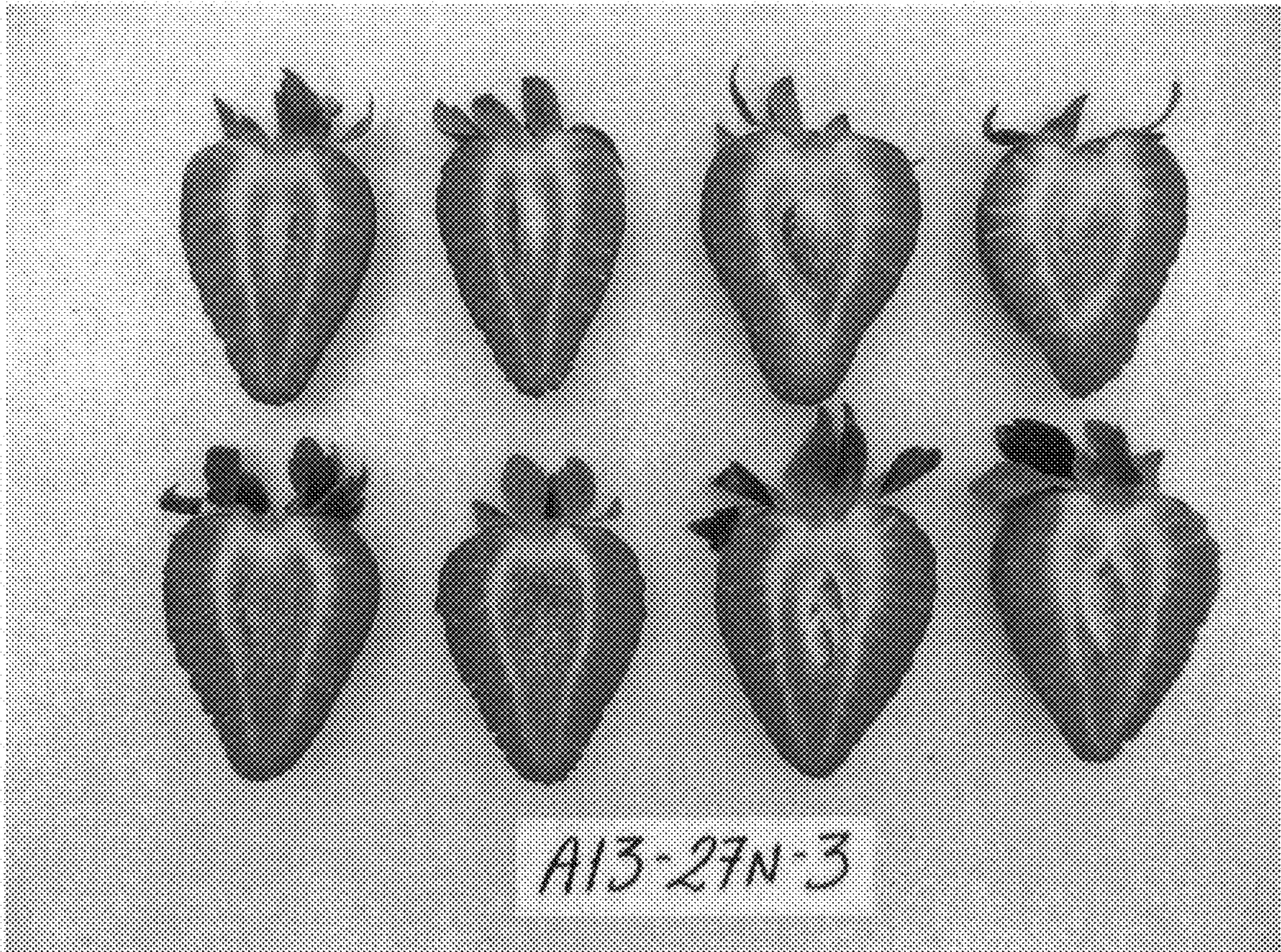


FIG. 5



UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : PP31,773 P3
APPLICATION NO. : 15/998037
DATED : May 19, 2020
INVENTOR(S) : Antonio Refoyo Piriz


Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page

Item (12), should read: Piriz

Item (72), Please replace “**Pírez**” with -- **Piriz** --

Signed and Sealed this
Nineteenth Day of July, 2022

Katherine Kelly Vidal
Director of the United States Patent and Trademark Office