



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

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(54) **RASPBERRY PLANT NAMED ‘BOUNTIFUL’**

(50) Latin Name: *Rubus idaeus*  
Varietal Denomination: **BOUNTIFUL**

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See application file for complete search history.

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(57) **ABSTRACT**

This invention relates to a new and distinct everbearing  
variety of raspberry plant named ‘BOUNTIFUL’. The new  
variety is primarily adapted to the growing conditions of the  
central coast of California and is characterized by the  
following: late primocane production with medium sized  
fruit of light-red coloration. Fruit is of consistent conic  
shape, releases very easily from the receptacle and is of good  
flavor. Foliage is flat to slightly concave, medium green;  
possessing weak rugosity and equal 3-5 foliates. Primocanes  
have an absent or very weak waxy coat, medium to dense  
thorn density and no anthocyanin coloration.

**4 Drawing Sheets**

**1**

Latin name of the genus and species of the plant claimed:  
*Rubus idaeus*.  
Variety denomination: ‘BOUNTIFUL’.

**BACKGROUND OF THE INVENTION**

The present invention relates to a new and distinct fall  
bearing raspberry variety designated as ‘BOUNTIFUL’.  
This new variety is a result of a controlled cross made in  
2007 in Watsonville, Calif. between raspberry variety  
‘ELEGANCE’ (patented, U.S. Plant Pat. No. 21,685) as the  
female parent and raspberry variety ‘PS-3636’ (unpatented)  
as the male parent in an ongoing breeding program. The  
variety is botanically known as *Rubus idaeus*.

The seedling resulting from the aforementioned cross was  
asexually propagated by dormant canes in Santa Cruz  
County, Calif. and was subsequently selected by the inventor  
from a controlled breeding plot in Watsonville, Calif. in  
2009. After its selection, the new variety was further asexu-  
ally propagated by dormant canes, roots and non-dormant  
root shoot cuttings in Santa Cruz County, Calif., San Joaquin  
County, Calif. and Siskiyou County, Calif. The new variety  
was then extensively tested over the next several years in  
fruiting fields in Santa Cruz County, Calif. This propagation  
has demonstrated that the combination of traits disclosed  
herein as characterizing the new variety are fixed and remain  
true to type through successive generations of asexual  
reproduction.

**BRIEF SUMMARY OF THE INVENTION**

‘BOUNTIFUL’ is primarily adapted to the climate and  
growing conditions of the central coast of California. This  
region provides the necessary year-round temperatures  
required for it to produce and maintain a strong vigorous

**2**

plant and to remain in fruit production from July through  
December on primocanes and in the ensuing year from May  
through July on the floricanes. The following traits have  
been repeatedly observed and are determined to be unique  
characteristics of ‘BOUNTIFUL’, which in combination  
distinguish this raspberry plant as a new and distinct variety:

1. Late primocane fruiting
2. Very high fruit yield
3. Light fruit color
4. Very weak adherence of receptacle
5. Good flavor

The raspberry variety that is believed to be most closely  
related to the new raspberry variety ‘BOUNTIFUL’ is the  
raspberry variety ‘GRANDEUR’ (patented, U.S. Plant Pat.  
No. 20,459). In comparison to the similar raspberry variety  
‘GRANDEUR’, ‘BOUNTIFUL’ differs by the following  
combination of characteristics described in Table 1:

**TABLE 1**

| Characteristic                      | ‘BOUNTIFUL’                     | ‘GRANDEUR’<br>(US PP20,459)     |
|-------------------------------------|---------------------------------|---------------------------------|
| Primocane waxy coat<br>(glaucosity) | Absent to very weak             | Absent to very weak             |
| Predominate number of<br>leaflets   | Equal 3-5                       | Always 3                        |
| Leaf shape (cross section)          | Flat to slightly concave        | Flat to slightly convex         |
| Rugosity                            | Weak                            | Strong                          |
| Color mature fruit                  | RHS 34A<br>Light red            | RHS 42A<br>Medium red           |
| Primocane fruit weight (g)          | 4.8                             | 3.9                             |
| Floricanes color                    | RHS 165B<br>Greyed-orange group | RHS 164A<br>Greyed-orange group |

'BOUNTIFUL' differs from its parents, 'ELEGANCE' and 'PS-3636' by the following combination of characteristics described in Table 2:

TABLE 2

| Characteristic             | 'BOUNTIFUL' | 'ELEGANCE'<br>(U.S. Plant Pat.<br>No. 21,685) |        |
|----------------------------|-------------|-----------------------------------------------|--------|
|                            |             | 'PS-3636'                                     |        |
| Productivity               | Very high   | Medium to low                                 | Medium |
| Glossiness (fruit)         | Medium      | High                                          | Medium |
| Adherence of receptacle    | Very weak   | Medium                                        | Medium |
| Primocane time of fruiting | Late        | Late                                          | Late   |
| Fruit size                 | Medium      | Small                                         | Medium |
| Flavor                     | Good        | Good                                          | Poor   |

For identification, a series of molecular markers have been determined for this new variety.

#### BRIEF DESCRIPTIONS OF THE DRAWINGS

The accompanying color photographs illustrate the overall appearance of typical specimens of the new raspberry variety, 'BOUNTIFUL' at various stages of development as true as reasonably possible with color reproductions of this type. Color in the photographs may differ slightly from the color value cited in the detailed botanical description which accurately describes the color of 'BOUNTIFUL'. The depicted plant and plant parts of the new raspberry variety 'BOUNTIFUL' were taken in Watsonville, Calif. and are approximately 2 to 16 months old:

FIG. 1 shows typical primocane foliage and fruit color; foliate and rugosity characteristics of 'BOUNTIFUL' taken in the month of July 2014;

FIG. 2 shows typical coloration of apical growing tip during early primocane rapid growth of 'BOUNTIFUL' taken in the month of May 2013;

FIG. 3 shows typical harvested fruit of 'BOUNTIFUL' taken in the month of August 2013;

FIG. 4 shows typical dormant cane color characteristics of 'BOUNTIFUL' taken in the month of January 2013.

#### DETAILED BOTANICAL DESCRIPTION

'BOUNTIFUL' has not been observed under all possible environmental conditions. The characteristics of the new variety may vary in detail, depending upon variations in environmental factors, including weather (temperature, humidity and light intensity), day length, soil type, and location.

The aforementioned photographs, together with the following description of the new raspberry variety 'BOUNTIFUL', unless otherwise noted, are based upon observations taken during the 2013-2014 growing season in Watsonville, Calif. Primocane measurements and ratings were taken from plants of 'BOUNTIFUL' dug from a nursery located in Siskiyou County, Calif. during the middle of October 2012 and planted approximately 3 to 4 weeks later in Watsonville, Calif. The approximate age of the observed primocane plants is 7 to 8 months. Floricane measurements and ratings were taken from the same planting of 'BOUNTIFUL' at an approximate age of 16 to 18 months. Yield observations and fruit quality characteristics are averaged from five years of data collected from the 2009 through 2013 production seasons. Flower measurements and characteristics are from secondary flowers unless otherwise noted. Fruit character-

istics and measurements are from secondary fruit unless otherwise noted. Foliage characteristics and measurements are from 3-foliolate foliage unless otherwise noted.

Color terminology where noted follows The R.H.S. Colour Chart Fifth Edition, Royal Horticultural Society, London, United Kingdom (1966).

The following tables 3-7 describe fruit, plant, foliage, flower and pest/disease characteristics of the new raspberry 'BOUNTIFUL' in comparison to the similar raspberry varieties 'GRANDEUR' (patented, U.S. Plant Pat. No. 20,459).

TABLE 3

#### FRUIT CHARACTERISTICS

| Characteristic                      | 'BOUNTIFUL'                    | 'GRANDEUR'<br>(U.S. Plant Pat.<br>No. 20,459) |
|-------------------------------------|--------------------------------|-----------------------------------------------|
| Color mature fruit                  | RHS 34A<br>Light to medium red | RHS 42A<br>Medium red                         |
| Color achenes                       | RHS 159A<br>Orange-white group | RHS 159A<br>Orange-white group                |
| Fruit length (mm)                   | 23.30                          | 22.91                                         |
| Fruit width (mm)                    | 21.87                          | 20.12                                         |
| Length/Width ratio                  | 1.06                           | 1.14                                          |
| Seed weight (mg)                    | 1.66                           | 1.75                                          |
| Drupelets per berry                 | 82                             | 93                                            |
| Weight of single drupe<br>(g/drupe) | 0.058                          | 0.043                                         |
| Relative size of drupes             | Medium                         | Medium                                        |
| Fruit size                          | Medium                         | Medium                                        |
| Predominant shape                   | Conical                        | Conical                                       |
| Evenness of color                   | Even                           | Even                                          |
| Glossiness                          | Medium                         | Medium                                        |
| Adherence of receptacle             | Very weak                      | Weak                                          |
| Firmness of flesh                   | Firm                           | Very firm                                     |
| Firmness of skin                    | Medium                         | Very firm                                     |
| Soluble Solids (% brix)             | 9.8                            | 10.5                                          |
| Flavor                              | Good                           | Good                                          |

TABLE 4

#### PLANT CHARACTERISTICS

| Characteristic                          | 'BOUNTIFUL'                    | 'GRANDEUR'<br>(U.S. Plant Pat.<br>No. 20,459) |
|-----------------------------------------|--------------------------------|-----------------------------------------------|
| General:                                |                                |                                               |
| Habit                                   | Semi-upright                   | Upright                                       |
| Size                                    | Medium                         | Medium                                        |
| Productivity                            | High                           | High                                          |
| Self-fruitfulness                       | Yes                            | Yes                                           |
| Type of bearing                         | Everbearing                    | Everbearing                                   |
| Primocane:                              |                                |                                               |
| Color (true)                            | RHS 145B<br>Yellow-green group | RHS 145B<br>Yellow-green group                |
| Length (cm)                             | 198.6                          | 143.6                                         |
| Basal diameter (mm)                     | 16.98                          | 21.80                                         |
| Diameter central 1/3 (mm)               | 10.31                          | 12.55                                         |
| Lateral length at central<br>1/3 (cm)   | 35.2                           | 43.6                                          |
| No. fruiting laterals per cane          | 15.2                           | 17.4                                          |
| Internode length at central<br>1/3 (mm) | 50.34                          | 48.84                                         |
| Anthocyanin coloration                  | n/a                            | RHS 59B<br>Red-purple group                   |
| Anthocyanin intensity                   | Absent                         | Weak                                          |
| Pubescence                              | Absent                         | Absent                                        |
| Length of vegetative bud<br>(mm)        | 6.82                           | 11.01                                         |

TABLE 4-continued

| PLANT CHARACTERISTICS               |                                 |                                               |
|-------------------------------------|---------------------------------|-----------------------------------------------|
| Characteristic                      | 'BOUNTIFUL'                     | 'GRANDEUR'<br>(U.S. Plant Pat.<br>No. 20,459) |
| Strength of waxy coat (glaucosity)  | Absent to very weak             | Absent to very weak                           |
| Time of flowering                   | Late                            | Medium                                        |
| Time of fruiting                    | Late                            | Medium                                        |
| Length of fruiting season           | Long                            | Long                                          |
| % of total yield                    | 47%                             | 50%                                           |
| Flowering period                    | Late June to Late November      | Late June to Late November                    |
| Harvest period                      | Late July to Late December      | Late July to Late December                    |
| Primocane fruit weight (g)          | 4.8                             | 3.9                                           |
| Primocane yield (g/plant)           | 3,495                           | 2,662                                         |
| <b>Young Shoots:</b>                |                                 |                                               |
| Number (per meter)                  | 25-30<br>Medium                 | 15-20<br>Medium                               |
| Anthocyanin presence                | Present                         | Present                                       |
| Anthocyanin coloration              | RHS 179B<br>Red-purple group    | RHS 179A<br>Greyed-red group                  |
| Anthocyanin intensity               | Absent to very weak             | Medium                                        |
| <b>Thorns:</b>                      |                                 |                                               |
| Thorn coloration                    | RHS 179C<br>Greyed-red group    | RHS 180C<br>Greyed-red group                  |
| Thorn length at central 1/3 (mm)    | 1.92                            | 0.76                                          |
| Thorn base at central 1/3 (mm)      | 1.34                            | 1.53                                          |
| Thorn presence                      | Present                         | Present                                       |
| Thorn density per cm at central 1/3 | 7.36                            | 3.38                                          |
| Thorn texture                       | Dense                           | Medium                                        |
| Thorn attitude of the tip           | Rigid                           | Rigid                                         |
| Floricane:                          | Horizontal                      | Horizontal                                    |
| Color (true)                        | RHS 165B<br>Greyed-orange group | RHS 164A<br>Greyed-orange group               |
| Length (cm)                         | 139.7                           | 119.8                                         |
| Fruiting lateral attitude           | Horizontal to drooping          | Erect                                         |
| Time bud burst                      | Medium                          | Medium                                        |
| Time of flowering                   | Medium                          | Medium                                        |
| Time of fruiting                    | Medium                          | Medium                                        |
| Length of fruiting season           | Medium to long                  | Medium to long                                |
| % of total yield                    | 53%                             | 50%                                           |
| Flowering period                    | Late April to Late June         | Late April to Late June                       |
| Harvest period                      | Late May to Late July           | Late May to Late July                         |
| Floricane fruit weight (g)          | 4.6                             | 3.7                                           |
| Floricane yield (g/plant)           | 4,010                           | 2,680                                         |

TABLE 5

| FOLIAGE CHARACTERISTICS |                                |                                                                |
|-------------------------|--------------------------------|----------------------------------------------------------------|
| Characteristic          | 'BOUNTIFUL'<br>(3 Foliolate)   | 'GRANDEUR'<br>(U.S. Plant Pat.<br>No. 20,459)<br>(3 Foliolate) |
| <b>General:</b>         |                                |                                                                |
| Color of upper surface  | RHS N 137B<br>Green group      | RHS N 137A<br>Green group                                      |
| Color of lower surface  | RHS 190B<br>Greyed-green group | RHS 190B<br>Greyed-green group                                 |
| Shape in cross section  | Flat to slightly concave       | Flat to slightly convex                                        |
| Arrangement             | Compound                       | Compound                                                       |

TABLE 5-continued

| FOLIAGE CHARACTERISTICS                 |                                 |                                                                |
|-----------------------------------------|---------------------------------|----------------------------------------------------------------|
| Characteristic                          | 'BOUNTIFUL'<br>(3 Foliolate)    | 'GRANDEUR'<br>(U.S. Plant Pat.<br>No. 20,459)<br>(3 Foliolate) |
| Relief between veins (rugosity)         | Weak                            | Strong                                                         |
| Glossiness                              | Weak                            | Weak                                                           |
| Number of leaflets/leaf                 | Equal 3-5                       | Always 3                                                       |
| <b>Terminal Leaflet:</b>                |                                 |                                                                |
| Length (mm)                             | 133.3                           | 127.5                                                          |
| Width (mm)                              | 83.6                            | 91.6                                                           |
| Length/Width Ratio                      | 1.6                             | 1.4                                                            |
| Size                                    | Longer than broad               | Longer than broad                                              |
| Shape                                   | Medium                          | Medium to large                                                |
| Shape of base                           | Cordate                         | Cordate                                                        |
| Shape of tip                            | Rounded                         | Cordate                                                        |
| Margins                                 | Acuminate                       | Acuminate                                                      |
| Margins                                 | Biserrate                       | Biserrate                                                      |
| <b>Lateral Leaflet:</b>                 |                                 |                                                                |
| Length (mm)                             | 113.9                           | 105.5                                                          |
| Width (mm)                              | 65.8                            | 65.1                                                           |
| Length/Width Ratio                      | 1.7                             | 1.6                                                            |
|                                         | Much longer than broad          | Longer than broad                                              |
| Rachis length (mm)                      | 37.1                            | 36.2                                                           |
| Orientation                             | Opposite                        | Opposite                                                       |
| Arrangement                             | Compound                        | Compound                                                       |
| Shape                                   | Ovate                           | Ovate                                                          |
| Overlapping                             | Free                            | Touching                                                       |
| Shape of the base                       | Acute                           | Oblique rounded                                                |
| Shape of the tip                        | Acuminate                       | Acuminate                                                      |
| Margins                                 | Biserrate                       | Biserrate                                                      |
| <b>Petiole:</b>                         |                                 |                                                                |
| Length (mm)                             | 63.82                           | 59.00                                                          |
| Width (mm)                              | 3.22                            | 3.99                                                           |
| Thorn presence                          | Yes                             | Yes                                                            |
| Thorn orientation                       | Erect                           | Erect                                                          |
| Anthocyanin coloration of upper surface | RHS 184B<br>Greyed-purple group | RHS 184C<br>Greyed-purple group                                |
| Anthocyanin intensity of upper surface  | Absent to very weak             | Weak                                                           |
| Stipule length (mm)                     | 11.19                           | 10.23                                                          |
| Stipule orientation                     | Erect                           | Erect to horizontal                                            |

TABLE 6

| FLOWER CHARACTERISTICS            |                                 |                                               |
|-----------------------------------|---------------------------------|-----------------------------------------------|
| Characteristic                    | 'BOUNTIFUL'                     | 'GRANDEUR'<br>(U.S. Plant Pat.<br>No. 20,459) |
| Petal color                       | 155C<br>White group             | 155C<br>White group                           |
| Flower diameter (mm)              | 24.53                           | 22.55                                         |
| Petal Length (mm)                 | 6.62                            | 6.42                                          |
| Petal width (mm)                  | 2.89                            | 3.11                                          |
| Petal length/width ratio          | 2.29                            | 2.06                                          |
|                                   | Much longer than broad          | Much longer than broad                        |
| No. petals/flower                 | 5.4                             | 5.2                                           |
| No. sepals/flower                 | 5.4                             | 5.2                                           |
| Relative number of pedicel thorns | 25.8                            | 16.2                                          |
|                                   | Many                            | Medium                                        |
| Peduncle anthocyanin presence     | Present                         | Present                                       |
| Peduncle anthocyanin coloration   | RHS 184A<br>Greyed-purple group | RHS 184A<br>Greyed-purple group               |
| Peduncle anthocyanin intensity    | Weak                            | Medium                                        |

TABLE 7

| PEST AND DISEASE REACTIONS                                           |                           |                                               |
|----------------------------------------------------------------------|---------------------------|-----------------------------------------------|
| Characteristic                                                       | 'BOUNTIFUL'               | 'GRANDEUR'<br>(U.S. Plant Pat.<br>No. 20,459) |
| Spotted wing drosophila<br>( <i>Drosophila suzukii</i> )             | Susceptible               | Susceptible                                   |
| Two spotted spider mite<br>( <i>Tetranychus urticae</i> )            | Susceptible               | Susceptible                                   |
| Grey fruit mold<br>( <i>Botrytis cinerae</i> )                       | Susceptible               | Susceptible                                   |
| Powdery mildew<br>( <i>Podosphaera aphanis</i> var. <i>aphanis</i> ) | Moderately<br>susceptible | Moderately<br>susceptible                     |

TABLE 7-continued

| PEST AND DISEASE REACTIONS                       |                         |                                               |
|--------------------------------------------------|-------------------------|-----------------------------------------------|
| Characteristic                                   | 'BOUNTIFUL'             | 'GRANDEUR'<br>(U.S. Plant Pat.<br>No. 20,459) |
| Yellow rust<br>( <i>Phragmidium rubi-idaei</i> ) | Moderately<br>resistant | Moderately<br>susceptible                     |

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I claim:  
 1. A new and distinct variety of raspberry plant named 'BOUNTIFUL', as herein described and illustrated by the characteristics set forth above.

\* \* \* \* \*

FIG. 1



FIG. 2

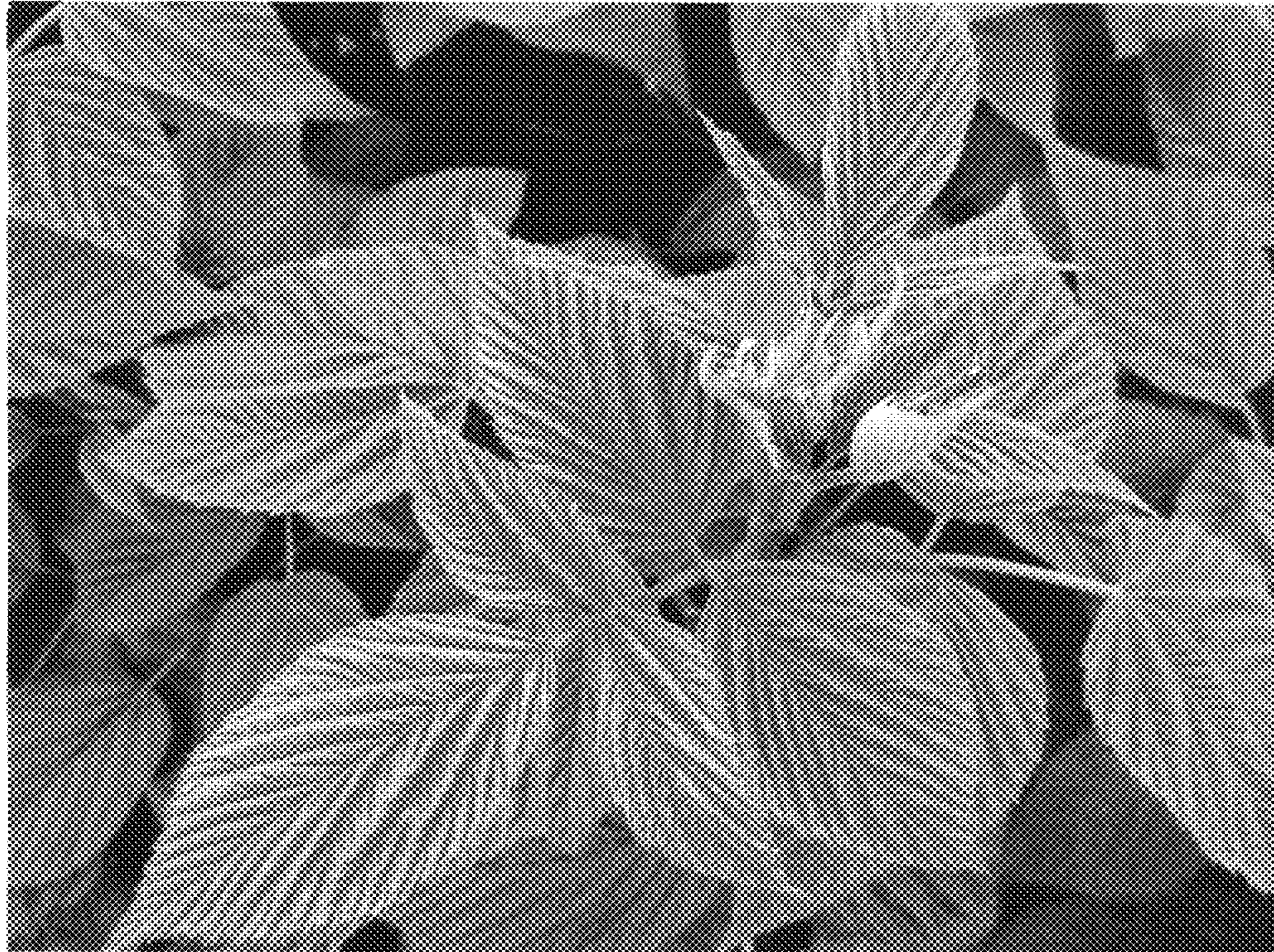


FIG. 3



FIG. 4

