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Sills et al.

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- (54) **BLACKBERRY PLANT VARIETY NAMED ‘DRISBLACKTWENTYFOUR’**
- (50) Latin Name: *Rubus L. subgenus Rubus*
Varietal Denomination: **DrisBlackTwentyFour**
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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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- (58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**
A new and distinct variety of blackberry plant named ‘DrisBlackTwentyFour’, selected for the flavor, size, and firmness of the fruit, as well as the vigor and health of the plant, is disclosed.

3 Drawing Sheets

Latin name:
Botanical classification: *Rubus L. subgenus Rubus*.
Varietal denomination: The varietal denomination of the claimed variety of blackberry plant is ‘DrisBlackTwenty-Four’.

BACKGROUND OF THE INVENTION

Blackberry is the common name for a multitude of plant species bearing dark purple to black aggregate fruit in the genus *Rubus* of the family Rosaceae. Most blackberries are within the subgenus *Rubus*.

Native chiefly to the northern temperate regions, blackberries are now being cultivated as a valuable fruit crop in many areas of the world, particularly in Europe, North America and Central America. Recognized for their high contents of antioxidants, dietary fiber, vitamin C, and vitamin K. Blackberry fruit are typically consumed as fresh fruit, individually quick frozen fruit, or in prepared foods, such as purées, juices, jellies, jams, grocery items, baked goods, and snack foods.

Globally, Mexico is the leading producer of blackberries, with nearly the entire crop being produced for export into the off-season fresh markets in North America and Europe. The

Mexican market is almost entirely from the cultivar ‘Tupi’ (also spelled as ‘Tupy’). In the United States, Oregon is the leading commercial blackberry producer, followed by the state of California.

Blackberries are perennial plants that typically bear biennial stems (known as “canes”) from a perennial root system. The two cane types are primocanes, or first-year canes, which are usually vegetative, and floricanes, which are the same canes and produce fruit in the next growing season. In its first year, a new cane, the primocane, grows vigorously to its full length of three to six meters in a growth habit of erecting, arching, or trailing along the ground and bearing large compound leaves with 3, 5, or 7 leaflets; it does not produce any flowers. In its second year, the cane becomes a florican and stops elongating, but the lateral buds break to produce flowering laterals that bear fruit.

Recently, primocane-fruiting blackberry varieties have been developed that are capable of flowering and fruiting on first-year canes. Primocane-fruiting blackberry varieties have several advantages, including potential of two crops on the same plant in the same year, reduction in pruning costs by mowing of canes, avoidance of winter injury, and production of fruit in an extended geographic area. However, primocane-fruiting blackberry varieties are also subject to a number of challenges, such as poor heat tolerance, lesser fruit quality, and low yield.

Blackberry is an important and valuable commercial fruit crop. Accordingly, there is a need for new varieties of blackberry plant. In particular, there is a need for improved varieties of blackberry plant that are stable, high yielding, and agronomically sound.

SUMMARY OF THE INVENTION

In order to meet these needs, the present invention is directed to an improved variety of blackberry plant. In particular, the invention relates to a new and distinct variety of blackberry plant (*Rubus* L. subgenus *Rubus*), which has been denominated as ‘DrisBlackTwentyFour’.

Blackberry plant variety ‘DrisBlackTwentyFour’ was discovered in Santa Cruz, Calif. in August of 2013 and originated from a cross between the female parent blackberry plant ‘BQ948.1’ (unpatented) and the male parent blackberry plant ‘DrisBlackThirteen’ (U.S. Plant Pat. No. 27,681). The original seedling of the new variety was first asexually propagated via root cuttings in Santa Cruz, Calif. in October of 2013.

‘DrisBlackTwentyFour’ was subsequently asexually propagated via root cuttings, and underwent testing in Santa Cruz, Calif. from 2015 to 2019 (four years). The present variety has been found to be stable and reproduce true to type through successive asexual propagations via root cuttings.

‘DrisBlackTwentyFour’ exhibits the following distinguishing characteristics over other similar varieties when grown under normal horticultural practices in Santa Cruz, Calif.:

1. Upright growth habit;
2. Angular cross-section of dormant cane;
3. Spines present on dormant cane; and
4. U-shape in cross-section of terminal leaflet.

‘DrisBlackTwentyFour’ was selected for the flavor, size, and firmness of the fruit, as well as the vigor and health of the plant.

BRIEF DESCRIPTION OF THE DRAWINGS

This new blackberry plant is illustrated by the accompanying photographs. The colors shown are as true as can be reasonably obtained by conventional photographic procedures. The photographs are of plants that are two to five years old.

FIG. 1 illustrates fruit of variety ‘DrisBlackTwentyFour’ at various stages of development.

FIG. 2 illustrates flowers of variety ‘DrisBlackTwentyFour’ at various stages of development.

FIG. 3 illustrates a plant of variety ‘DrisBlackTwentyFour’.

DETAILED BOTANICAL DESCRIPTION

The following descriptions set forth the distinctive characteristics of ‘DrisBlackTwentyFour’. The data that define these characteristics are based on observations taken in Santa Cruz, Calif. from 2015 to 2019. 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. ‘DrisBlackTwentyFour’ has not been observed under all possible environmental conditions. The botanical description of ‘DrisBlackTwentyFour’ was taken from plants that were two to five years old. The indicated values represent averages calculated from measurements of several plants. Color references are primarily to The R.H.S. Colour Chart of The Royal Horticultural Society of London (R.H.S.) (2015 edition). Descriptive terminology follows the *Plant Identification Terminology, An Illustrated Glossary*, 2nd edition by James G. Harris and Melinda Woolf Harris, unless where otherwise defined.

Classification:

Family.—Rosaceae.

Botanical.—*Rubus* L. subgenus *Rubus*.

Common name.—Blackberry.

Variety name.—‘DrisBlackTwentyFour’.

Parentage:

Female parent.—‘BQ948.1’ (unpatented).

Male parent.—‘DrisBlackThirteen’ (U.S. Plant Pat. No. 27,681).

Plant:

Propagation.—Root cuttings.

Growth habit.—Upright.

Canes:

Fruiting lateral length (4th lateral from tip).—67.2 cm.

Number of fruits per fruiting lateral.—16.3.

Internodal distance.—6.5 cm.

Dormant cane.—Anthocyanin color: RHS 183B (Dark red). Predominant distribution of branches: Over whole length. Cross-section: Angular.

Spines.—Presence of spines: Present. Number of spines: Many. Spine size: Large. Attitude of spine apex in relation to cane: Outwards. Spine color: RHS 41C (Moderate reddish orange).

Young shoots:

Anthocyanin color (during rapid growth).—RHS 184B (Moderate red).

Intensity of green color.—RHS 139D (Moderate yellow-green).

Number of glandular hairs.—Many.

Leaves:

Time of leaf bud burst.—Early. 5

Terminal leaflet.—Length: 94.5 mm. Width: 54.5 mm. Length/width ratio: 1.733. Lobing: Absent. Shape in cross-section: U-shaped. Undulation of margin: Absent or very weak.

Lateral leaflets (basal pair).—Length: 67.4 mm. 10 Width: 42.6 mm. Length/width ratio: 1.582.

Rachis length between terminal leaflet and adjacent lateral leaflets.—8.4 mm.

Rachis color.—RHS 41D (Deep yellowish pink).

Petiole.—Length: 39.5 mm. Diameter: 2.2 mm. Color: 15 RHS 41D (peep yellowish pink).

Leaflet.—Type of incision of margin: Bi-serrate. Depth of margin incisions: Medium. Apex shape: Convex. Base shape: Obtuse.

Leaf.—Predominant number of leaflets: 5. Type: Pal- 20 mate. Glossiness of upper side: Medium. Color of upper side: RHS 143A (Strong yellowish green). Color of lower side: RHS 143B (Strong yellowish green).

Flowers:

Diameter.—4.

Petal.—Length: 16.8 mm. Width: 14.8 mm. Length/width ratio: 1.14. Color: RHS NN155C (White). Number of petals per flower: 5. Petal shape (overall): 25 Oval. Apex shape: Rounded. Base shape: Attenuate.

Number of flowers observed at 3rd node from tip of lateral.—1.4.

Sepal.—Shape: Elliptic. Color of upper side: RHS 144B (Strong yellowish green). Color of lower side: 30 RHS 141C (Strong yellowish green).

Pedicel.—Length: 48.9 mm. Diameter: 1.3 mm. Color: RHS 143D (Moderate yellowish green).

Filament.—Color: RHS 157C (Pale yellowish green).

Anther.—Color: RHS 157B (Pale yellowish green).

Pollen.—Color: RHS 157B (Pale yellowish green). 40

Time of beginning of flowering on previous year's cane.—Medium.

Time of beginning of flowering on current year's cane.—Medium.

Fruit:

Length of mature fruit.—30.8 mm.

Diameter of mature fruit.—25.3 mm.

Ratio of length to width.—1.22.

Number of drupelets per fruit.—Medium.

Size of drupelets.—Medium.

Fruit shape in longitudinal section.—Elliptic.

Fruit color.—RHS 203A (Black).

Fruiting on current year's cane.—Present.

Harvest interval on present year's cane.—Mid-June to early August.

Yield.—22,000 to 33,000 pounds per acre of fruit per season from 24- to 36-month-old plants when grown in Watsonville, Calif.

Market use of fruit.—Fresh market.

Resistance to pests and diseases:

Redberry mite (acalitus essigi).—Moderately resistant.

Fusarium wilt (fusarium oxysporum).—Resistant.

COMPARISONS TO PARENTAL AND COMMERCIAL BLACKBERRY VARIETIES

'DrisBlackTwentyFour' differs from the female parent 'BQ948.1' (unpatented) in that 'DrisBlackTwentyFour' has bigger fruit size and higher yield potential when compared to 'BQ948.1'.

'DrisBlackTwentyFour' differs from the male parent 'DrisBlackThirteen' (U.S. Plant Pat. No. 27,681) in that 'DrisBlackTwentyFour' has an upright growth habit, an angular cross-section of dormant cane, spines present on dormant cane, and a U-shape in cross-section of terminal leaflet, whereas 'DrisBlackThirteen' has a semi-upright growth habit, an angular to grooved cross-section of dormant cane, spines absent on dormant cane, and a V-shape in cross-section of terminal leaflet. In addition, 'DrisBlackTwentyFour' has higher vigor when compared to 'DrisBlackThirteen'.

'DrisBlackTwentyFour' differs from commercial blackberry variety 'DrisBlackTwelve' (U.S. Plant Pat. No. 27,746) in that 'DrisBlackTwentyFour' has an upright growth habit, an angular cross-section of dormant cane, spines present on dormant cane, and an elliptic fruit shape in longitudinal section, whereas 'DrisBlackTwelve' has an upright to semi-upright growth habit, a rounded to angular cross-section of dormant cane, spines absent on dormant cane, and a medium ovate fruit shape in longitudinal section.

'DrisBlackTwentyFour' differs from commercial blackberry variety 'APF-45' (U.S. Plant Pat. No. 22,449, also known as 'Prime-Ark® 45') in that 'DrisBlackTwentyFour' has a bi-serrate type of incision of leaflet margin, predominantly five leaflets per leaf, and an elliptic fruit shape in longitudinal section, whereas 'APF-45' has a serrate type of incision of leaflet margin on florican, predominantly three leaflets per leaf on florican, and an elongated to blocky to slightly conical fruit shape in longitudinal section.

What is claimed is:

1. A new and distinct variety of blackberry plant designated 'DrisBlackTwentyFour' as shown and described herein.

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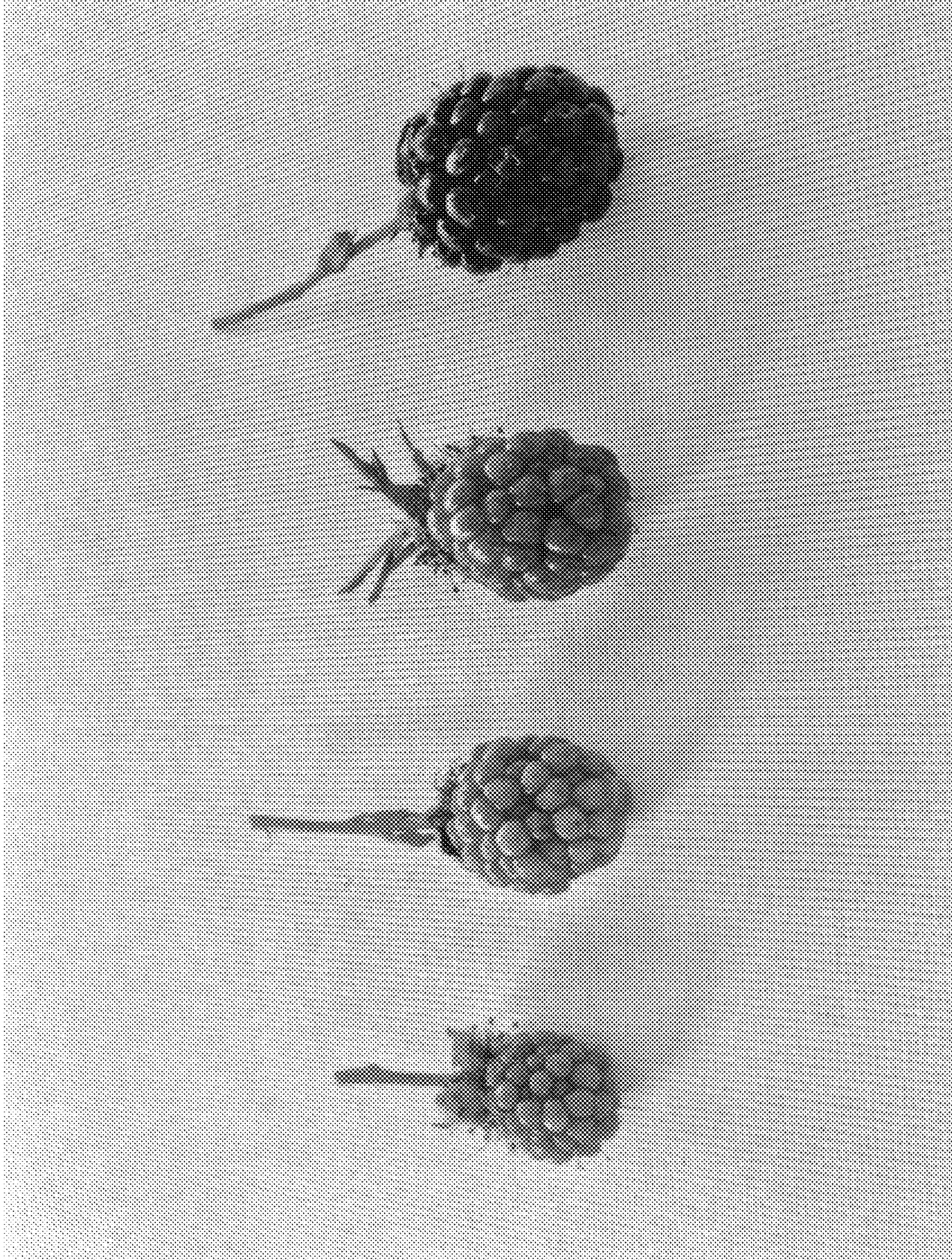


FIG. 1

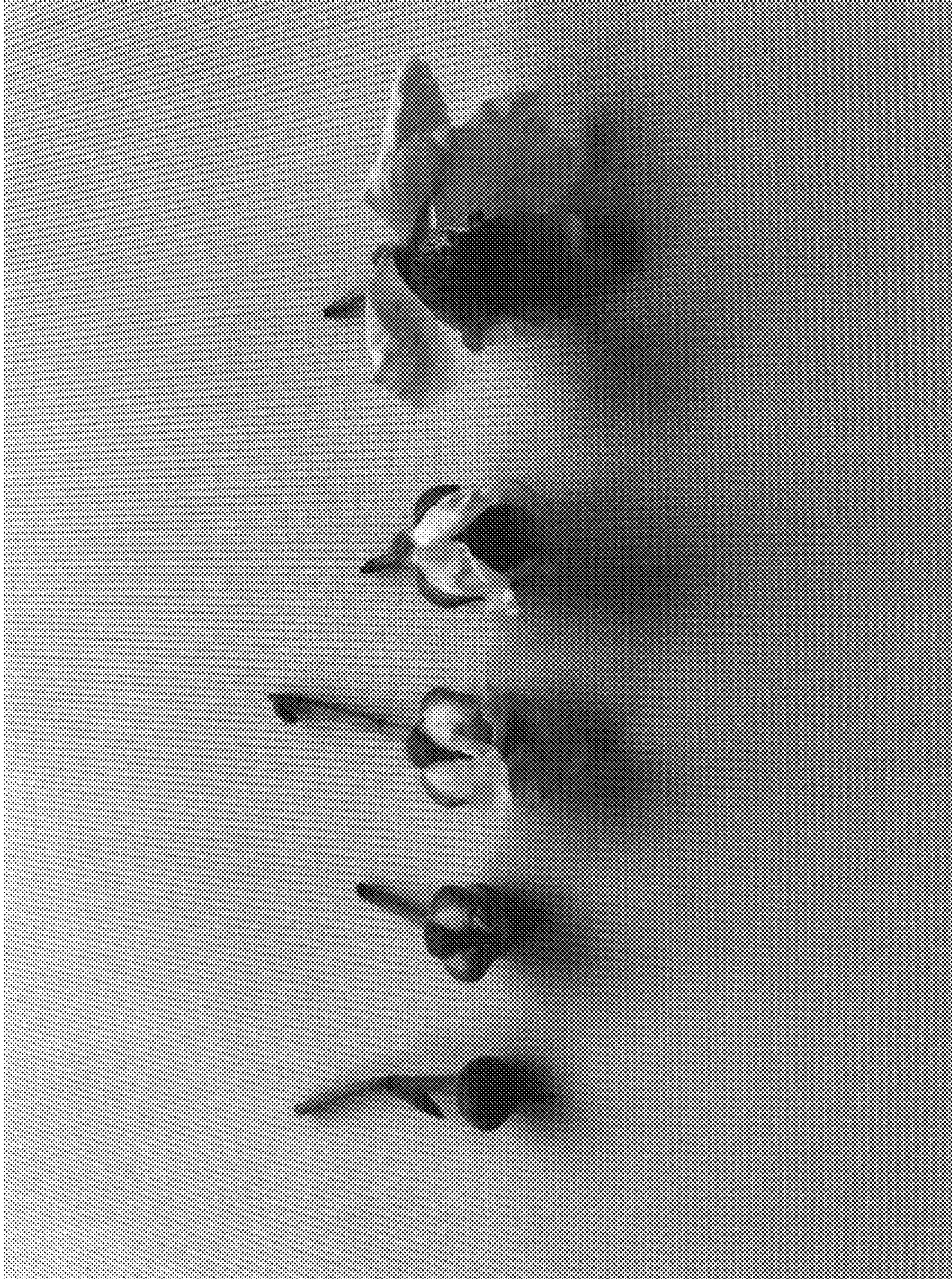


FIG. 2



FIG. 3