

[54] 'MINIKIN'
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[58] Field of Search Plt./54

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[57] ABSTRACT

A new cultivar of Forsythia named 'Minikin' characterized by its small ultimate size, small narrow foliage, small flowers, slow and compact growth habit, excellent propagation from stem cuttings, hardiness, and its fine-textured overall appearance.

3 Drawing Sheets

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This invention relates to a new variety of Forsythia cv. "Minikin", which is characterized especially by the small size of its leaves, flowers, stems, and internodes, and by its overall small stature.

The new variety was derived as a seedling from a vegetative line of mutants, which had been produced in turn by subjecting rooted cuttings of the parent *Forsythia intermedia* "Lynwood Gold" (a sport of *F. intermedia* "Spectabilis") to irradiation with 1,200 rad fast neutrons.

In 1968, three hundred cuttings of "Lynwood Gold" that had been potted and held in cold storage (38° F.) for six weeks and then returned to the greenhouse for two days were irradiated with 1200 rad fast neutrons. One of the plants of this group that broke dormancy formed a shoot with variegated foliage. This plant was cut back repeatedly to induce branching and eventually formed shoots that exhibited different characteristics. Each shoot was propagated by stem cuttings over 10 vegetative generations of selection and propagation. From this plant population two vegetatively selected types and three seedlings were selected. Further propagation and testing of these selections over several more years were shown to be the stable and new forsythia varieties that are the subject of this and four other co-pending plant patent applications; viz:

Ser. No.	Name	Type
272,063	"Lemon-Screen"	vegetative selection
273,489	"Tinkle Bells"	vegetative selection
271,919	"Minikin"	seedling
271,665	"Fairy Land"	seedling
271,666	"Pygmy-Red"	seedling

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Each differs greatly from the parent "Lynwood Gold" and also from one another.

"Minikin" was selected at the seedling stage because of its small and linear foliage and short internodes. Stem cuttings from this plant have been rooted in soil and asexually propagated, and its progeny have displayed homogeneous and stable characteristics.

Throughout this specification, color names beginning with a small letter signify that the name of the color as used in common speech are aptly descriptive. Color names beginning with a capital letter designate values based on the R.H.S. Colour Chart, published by The Royal Horticultural Society of London, England.

The accompanying drawings illustrate the new variety in color as grown in Knox County within the State of Tennessee.

FIG. 1 illustrates "Minikin" as a 5½ year old plant in bloom in March.

FIG. 2 shows flowered cut stems of "Minikin".

FIG. 3 is a close-up view of the flowers of FIG. 2.

FIG. 4 illustrates the "Minikin" plant in full summer foliage. The white flag is 2.5 inches wide.

FIG. 5 is a closer view of the foliage shown in FIG. 4. The white label is 0.6 inch wide and 5 inches long.

The following characteristics distinguish "Minikin" from its parent and other Forsythia cultivars:

THE PLANT

"Minikin" is an attractive, fine textured, densely foliated cultivar, especially suited for container culture; ultimate size of "Minikin" is 2 ft. to 2½ ft. in height and 3 ft. to 4 ft. wide.

"Minikin" does not require the degree of winter protection required for most container grown genera. It is hardy in Zone 6b or lower. Because of its size and char-

acter, "Minikin" is suited for forcing into bloom before the normal flowering season and being sold as a potted floral plant which can be planted in a landscape later. The "Minikin" cultivar exhibits good vigor, but grows slowly. It requires no pruning to maintain its size and shape, except for cosmetic or rejuvenation purposes. It layers naturally and forms abundant seed pods. Its size and texture make it suitable for mass or ground cover use, or as a background plant for flower borders, as well as a specimen plant in a small garden or planter box.

Its parent, "Lynwood Gold", by contrast is tall and slender—a straight upright variety with erect stems and which attains a height of 6 ft. to 7½ ft. at maturity.

FLOWER

The flowers of "Minikin" are small (½" to ¾" in width) Yellow 9 A in color and there are two to four flowers per node. The "Minikin" flowers are fully reflexed (cup shaped), with four short, recurved petals. Corolla lobes are very small and strongly reflexed. The short pistils are 1/25 in. below the pollen sacs of the stamen. The flowering date is intermediate.

The "Lynwood Gold" parent is fertile and has pistils that extend well above its pollen sacs, is late flowering and its medium sized flowers (about 1" to 1½" in diameter) are almost evenly spaced on the stem. The flowers of "Lynwood Gold" are brilliant yellow (lighter than its parent, F. Spectabilis). The corolla lobes of "Lynwood Gold" are reflexed and its petals are large, broad open and elliptic.

SHOOTS

The "Minikin" internodes on flowering shoots are only ¼ in. to ½ in. long; and on vegetative shoots the internodes are up to 2 inches long.

"Minikin" stems are light green when young and brownish green when mature. Stems are ascending and strongly lamellate between nodes.

The stems of the "Lynwood Gold" parent are green when young and brown when mature; they are a bit stiff; the pith at the nodes is lamellate, and on one year shoots, the stems between nodes are hollow.

FOLIAGE

The leaves of Minikin are simple, lightly serrate and linear, being acuminate at the tip and attenuate at the base. Young and mature leaves vary from bright green to dark green and in the fall a faded green until leaf drop. Venation is pinnate. The leaf blades on vegetative shoots are only about ¼ in. wide and 1½ inches long, attached to a ½ in. long slender petiole; the leaves on flowering shoots are smaller.

The leaves of the "Lynwood Gold" parent, on the other hand, are ovate lanceolate in shape and about 3" to 4½" long and about 1" to 1½" wide. Both young and old leaves are deep green in color.

To facilitate the comparison of the characteristics and features of "Minikin", the subject of this application, and its parent, "Lynwood Gold" and also with the four other new mutant offspring varieties of "Lynwood Gold" referred to above, there are attached hereto as Tables 1-5 comparative tabulations of the characteristics and properties of parent and its five offspring mutants that were developed from a single irradiated plant of "Lynwood Gold." Table 1 compares "Minikin" and its parent "Lynwood Gold". Table 2 compares "Minikin" and "Pygmy-Red". Table 3 compares "Minikin" and "Tinkle Bells". Table 4 compares "Minikin" and

"Lemon-Screen". Table 5 compares "Minikin" and "Fairy Land".

TABLE 1

Ser. No. 271,919	
MINIKIN	
Plant:	
Habit	Small stature, fine textured; small leaves and small stems; densely foliated
Size, height	2'-2½'
Size, width	3'-4'
Vigor	Good vigor but slow growth
Hardiness	Zone 6b (or lower)
Productivity	Layers naturally Abundant seed pods
Stems or Shoots:	
Color (young)	Light green
Color (mature)	Brownish green
Rigidity	Ascending strongly lamellate between nodes
Leaves:	
Type	Simple
Color:	
(young)	Bright green to dark green
(mature)	Bright green to dark green
(fall)	Fading green until leaf drop
Shape	Linear
tip	Accuminate
base	Attenuate
margins	Lightly serrate
Size:	
length	On vegetative shoots-1½" attached to ½" long slender petiole; smaller on flowering shoots
width	On vegetative shoots - ¼";
Venation	Pinnate
Flower:	
Date of Flowering	Intermediate
Size: width	½"-¾" (cup shaped) fully reflexed
Color:	Yellow (9A)
Corolla: length	
lobes	strongly reflexed, very small
Petals: number	4: - short and recurved
Pistils:	Short; 1/25" below pollen sacs of stamens
Number per node:	2-4
Insertion angle on upright stems:	
Internodes:	Short (Flowering shoots ¼-¾" Vegetative shoots up to 2")
Stress Resistance:	Doesn't require same degree of winter protection as most container grown plants of genre
Utility Aspects:	Blooming can be forced. Especially suited for container culture.

LYNWOOD GOLD

Plant:	
Habit	Tall, slender-Upright straight & erect stems
Size, height	6'-7½'
Size, width	
Vigor	
Hardiness	
Productivity	Fertile
Stems or Shoots:	
Color (young)	Green
Color (mature)	Brown
Rigidity	A bit stiff; pith nodes lamellate; hollow between nodes on one year shoots
Leaves:	
Type	
Color:	
(young)	Deep Green
(mature)	Deep Green
(fall)	
Shape	ovate lanceolate
tip	
base	

TABLE 1-continued

Ser. No. 271,919	
margins	
<u>Size:</u>	
length	3-4½"
width	1-1½"
Venation	
<u>Flower:</u>	
Date of Flowering	Late
Size: width	1"-1½" (medium)
Color:	Brilliant Yellow (lighter than its parent Spectabilis)
Corolla: length	
lobes	Reflexed
Petals: number	Large, broad, open
	Elliptic
Pistils:	Extend well above pollen sacs (anthers) of stamens
Number per node:	
Insertion angle on upright stems:	
Internodes:	Flowers almost evenly spaced on stems
Stress Resistance:	
Utility Aspects:	

TABLE 2

Ser. No. 271,919 MINIKIN	
<u>Plant:</u>	
Habit	Small stature, fine textured; small leaves and small stems; densely foliated
Size, height	2'-2½'
Size, width	3'-4'
Vigor	Good vigor but slow growth
Hardiness	Zone 6b (or lower)
Productivity	Layers naturally
	Abundant seed pods
<u>Stems or Shoots:</u>	
Color (young)	Light green
Color (mature)	Brownish green
Rigidity	Ascending strongly
	lamellate between nodes
<u>Leaves:</u>	
Type	Simple
<u>Color:</u>	
(young)	Bright green to dark green
(mature)	Bright green to dark green
(fall)	Fading green until leaf drop
Shape	Linear
tip	Accuminate
base	Attenuate
margins	Lightly serrate
<u>Size:</u>	
length	On vegetative shoots-1½" attached to ¼" long slender petiole; smaller on flowering shoots
width	On vegetative shoots - ¼";
Venation	Pinnate
<u>Flower:</u>	
Date of Flowering	Intermediate
Size: width	½"-¾" (cup shaped) fully reflexed
Color:	Yellow (9A)
Corolla: length	
lobes	strongly reflexed, very small
Petals: number	4: - short and recurved
Pistils:	Short; 1/25" below pollen sacs of stamens
Number per node:	2-4
Insertion angle on upright stems:	
Internodes:	Short (Flowering shoots ½"-¾" Vegetative shoots up to 2")
Stress Resistance:	Doesn't require same degree of winter protection as most container grown plants of genre
Utility Aspects:	Blooming can be forced. Especially suited for container culture.

TABLE 2-continued

Ser. No. 271,666 PYGMY RED	
<u>Plant:</u>	
Habit	Low, loose graceful arching to ground
Size, height	3½'-4½'
Size, width	5'-6'
Vigor	Good vigor
Hardiness	Hardy Zone 6b (or lower)
Productivity	Readily roots where branches touch ground few seed pods
<u>Stems or Shoots:</u>	
Color (young)	High anthocyanin
Color (mature)	Purple Red (59A)
Rigidity	Flexible lamellate between nodes
<u>Leaves:</u>	
Type	Simple
<u>Color:</u>	
(young)	Dark Green
(mature)	Dark Green
(fall)	Anthocyanin (maroon) expressed in full sun
Shape	Lanceolate (few lobed leaves on vegetative shoots)
tip	Accuminate
base	Attenuate
margins	Serrate
<u>Size:</u>	
length	2"-2½" on flowering wood; to 2½" on vegetative wood
width	0.3"-0.4" on flowering wood; to 1" on vegetative wood
Venation	Pinnate
<u>Flower:</u>	
Date of Flowering	Intermediate
Size: width	1½"-1¾"
Color:	Yellow (7A)
Corolla: length	
lobes	Narrow
Petals: number	4 - sometimes 5
Pistils:	Extend 2/25"-3/25" above pollen sacs of stamens
Number per node:	2
Insertion angle on upright stems:	
Internodes:	1"-1½" (1½" even on fast growing shoots)
Stress Resistance:	disease and insect
Utility Aspects:	

TABLE 3

Ser. No. 271,919 MINIKIN	
<u>Plant:</u>	
Habit	Small stature, fine textured; small leaves and small stems; densely foliated
Size, height	2'-2½'
Size, width	3'-4'
Vigor	Good vigor but slow growth
Hardiness	Zone 6b (or lower)
Productivity	Layers naturally
	Abundant seed pods
<u>Stems or Shoots:</u>	
Color (young)	Light green
Color (mature)	Brownish green
Rigidity	Ascending strongly
	lamellate between nodes
<u>Leaves:</u>	
Type	Simple
<u>Color:</u>	
(young)	Bright green to dark green
(mature)	Bright green to dark green
(fall)	Fading green until leaf drop
Shape	Linear
tip	Accuminate
base	Attenuate

TABLE 3-continued

margins	Lightly serrate	
<u>Size:</u>		
length	On vegetative shoots-1½" attached to ½" long slender petiole; smaller on flowering shoots	5
width	On vegetative shoots - ½":	
Venation	Pinnate	
<u>Flower:</u>		
Date of Flowering	Intermediate	
Size: width	½"-¾" (cup shaped) fully reflexed	10
Color:	Yellow (9A)	
Corolla: length		
lobes	strongly reflexed, very small	
Petals: number	4: - short and recurved	
Pistils:	Short; 1/25" below pollen sacs of stamens	15
Number per node:	2-4	
Insertion angle on upright stems:		
Internodes:	Short (Flowering shoots ½"-¾" Vegetative shoots up to 2")	
Stress Resistance:	Doesn't require same degree of winter protection as most container grown plants of genre	20
Utility Aspects:	Blooming can be forced. Especially suited for container culture.	
	Ser. No. 273,489	
	TINKLE BELLS	25
<u>Plant:</u>		
Habit	Semi-dwarf: Upright	
Size, height	4'-4½'	
Size, width		
Vigor	Medium vigor	30
Hardiness	Hardy Zone 6b (or lower)	
Productivity	Does not layer naturally (replicates from stools (no seed pods observed)	
<u>Stems or Shoots:</u>		
Color (young)	Yellow Green	
Color (mature)	Light brown	35
Rigidity	Sparsely lamellate between nodes - Rigid	
<u>Leaves:</u>		
Type	Simple	
<u>Color:</u>		
(young)	Medium Green	40
(mature)	Medium Green	
(fall)	Faded green to yellow	
Shape	Elliptical	
tip	Acute on flower shoots acuminate on vegetative shoots	
base		45
margins	serrate on upper ½ near tip	
<u>Size:</u>		
length	2"-3" (with petiole)	
width	½"	
Venation	Pinnate	50
<u>Flower:</u>		
Date of Flowering	Early	
Size: width	½"-¾" at 45° angle	
Color:	Bright Yellow (7B)	
Corolla: length	½" open to 45° angle	
lobes	not reflexed during prime	
Petals: number	4; occasionally 5 or 6	55
Pistils:	short: anthers slightly below stigma portion of pistil	
Number per node:	2; often 4 per node	
Insertion angle on upright stems:	buds & flowers pendulous	
Internodes:	½"-1½"	60
Stress Resistance:	Disease and insect	
Utility Aspects:	Can force flowering suitable for container culture	
	TABLE 4	65
	Ser. No. 271,919	
	MINIKIN	

TABLE 4-continued

<u>Plant:</u>		
Habit	Small stature, fine textured; small leaves and small stems; densely foliated	
Size, height	2'-2½'	
Size, width	3'-4'	
Vigor	Good vigor but slow growth	
Hardiness	Zone 6b (or lower)	
Productivity	Layers naturally	
	Abundant seed pods	
<u>Stems or Shoots:</u>		
Color (young)	Light green	
Color (mature)	Brownish green	
Rigidity	Ascending strongly lamellate between nodes	
<u>Leaves:</u>		
Type	Simple	
<u>Color:</u>		
(young)	Bright green to dark green	
(mature)	Bright green to dark green	
(fall)	Fading green until leaf drop	
Shape	Linear	
tip	Accuminate	
base	Attenuate	
margins	Lightly serrate	
<u>Size:</u>		
length	On vegetative shoots-1½" attached to ½" long slender petiole; smaller on flowering shoots	
width	On vegetative shoots - ½":	
Venation	Pinnate	
<u>Flower:</u>		
Date of Flowering	Intermediate	
Size: width	½"-¾" (cup shaped) fully reflexed	
Color:	Yellow (9A)	
Corolla: length		
lobes	strongly reflexed, very small	
Petals: number	4: - short and recurved	
Pistils:	Short; 1/25" below pollen sacs of stamens	
Number per node:	2-4	
Insertion angle on upright stems:		
Internodes:	Short (Flowering shoots ½"-¾" Vegetative shoots up to 2")	
Stress Resistance:	Doesn't require same degree of winter protection as most container grown plants of genre	
Utility Aspects:	Blooming can be forced. Especially suited for container culture.	
	Ser. No. 272,063	
	LEMON SCREEN	
<u>Plant:</u>		
Habit	Tall, open and graceful; Upright, fan shape; vigorous; open foliage	
Size, height	Up to 10'	
Size, width	Hardy Zone 6b (or lower)	
Vigor	Vigorous	
Hardiness		
Productivity	Abundant Flowers/highly sterile/pruned wood branches quickly	
<u>Stems or Shoots:</u>		
Color (young)		
Color (mature)	Yellow	
Rigidity	Slightly lamellate between nodes	
<u>Leaves:</u>		
Type	Simple	
<u>Color:</u>		
(young)	Yellow green 151 B or Chartreuse (appear after flowering)	
(mature)	Normal green (Yellow-Green 144) whitish blotches	
(fall)	Greyed Purple 187 B	
Shape		
tip	Accuminate	
base	Attenuate	
margins	Serrate	

TABLE 4-continued

Size:		
length	Not distinguishing	
width	Not distinguishing	
Venation	Pinnate	5
Flower:		
Date of Flowering	Early	
Size: width	1½"-1¾"	
Color:	Yellow (6C)	
Corolla: length lobes	Somewhat reflexed	10
Petals: number	4, sometimes fasciated	
Pistils:	aborted stamens &/or pistils	
Number per node:	4 to 8	
Insertion angle on upright stems:		
Internodes:	1" to 2" long on flowering wood	15
Stress Resistance:	Summer foliage disease & insect resistant	
Utility Aspects:	Summer pruning leads to shoot with chartreuse leaves (young)	20

TABLE 5

Ser. No. 271,919 MINIKIN		
Plant:		25
Habit	Small stature, fine textured; small leaves and small stems; densely foliated	
Size, height	2'-2½'	
Size, width	3'-4'	30
Vigor	Good vigor but slow growth	
Hardiness	Zone 6b (or lower)	
Productivity	Layers naturally	
	Abundant seed pods	
Stems or Shoots:		
Color (young)	Light green	35
Color (mature)	Brownish green	
Rigidity	Ascending strongly lamellate between nodes	
Leaves:		
Type	Simple	40
Color:		
(young)	Bright green to dark green	
(mature)	Bright green to dark green	
(fall)	Fading green until leaf drop	
Shape	Linear	45
tip	Accuminate	
base	Attenuate	
margins	Lightly serrate	
Size:		
length	On vegetative shoots-1½" attached to ¼" long slender petiole; smaller on flowering shoots	50
width	On vegetative shoots - ¼";	
Venation	Pinnate	
Flower:		
Date of Flowering	Intermediate	
Size: width	½"-¾" (cup shaped) fully reflexed	
Color:	Yellow (9A)	
Corolla: length lobes	strongly reflexed, very small	
Petals: number	4: - short and recurved	
Pistils:	Short; 1/25" below pollen	

TABLE 5-continued

	sacs of stamens	
Number per node:	2-4	
Insertion angle on upright stems:		
Internodes:	Short (Flowering shoots ¼-¾" Vegetative shoots up to 2")	
Stress Resistance:	Doesn't require same degree of winter protection as most container grown plants of genre	
Utility Aspects:	Blooming can be forced. Especially suited for container culture.	
Ser. No. 271,665 FAIRY LAND		
Plant:		
Habit	Small overall & fine textured: Closely spaced flowers & leaves Dense (young) foliage	
Size, height	3'-4'	
Size, width	5'-6'	
Vigor	Good vigor for size	
Hardiness	Zone 6b (or lower)	
Productivity	Few seed pods	
Stems or Shoots:		
Color (young)	Light green	
Color (mature)	Brownish green	
Rigidity	Very flexible lamellate between nodes	
Leaves:		
Type	Simple	
Color:		
(young)	Medium green (fairly light)	
(mature)	Medium green (fairly light)	
(fall)	Mostly faded yellow	
Shape	Lanceolate	
tip	Accuminate	
base	Attenuate	
margins	On flowering wood: entire On vegetative wood: serrate top ½	
Size:		
length	On flowering wood: 1½"-2½" On vegetative shoots: about 3"	
width	On flowering wood: 0.2"-0.4" On vegetative shoots 0.5-0.6"	
Venation	Pinnate	
Flower:		
Date of Flowering	Intermediate	
Size: width	¾"-1¼"	
Color:	Yellow (6A)	
Corolla: length lobes	Reflexed, small	
Petals: number	Generally 4-many have 5, 6, 7 and 8 on single corolla	
Pistils:	Extend 3/25" to 4/25" above pollen sacs (anthers) of the stamen	
Number per node:	2-4	
Insertion angle on upright stems:		
Internodes:	¼" to about 1"	
Stress Resistance:		
Utility Aspects:	Very well suited for container culture	

55 What is claimed is:
1. A new and distinct cultivar of Forsythia named 'Minikin', substantially as shown and described herein.
* * * * *

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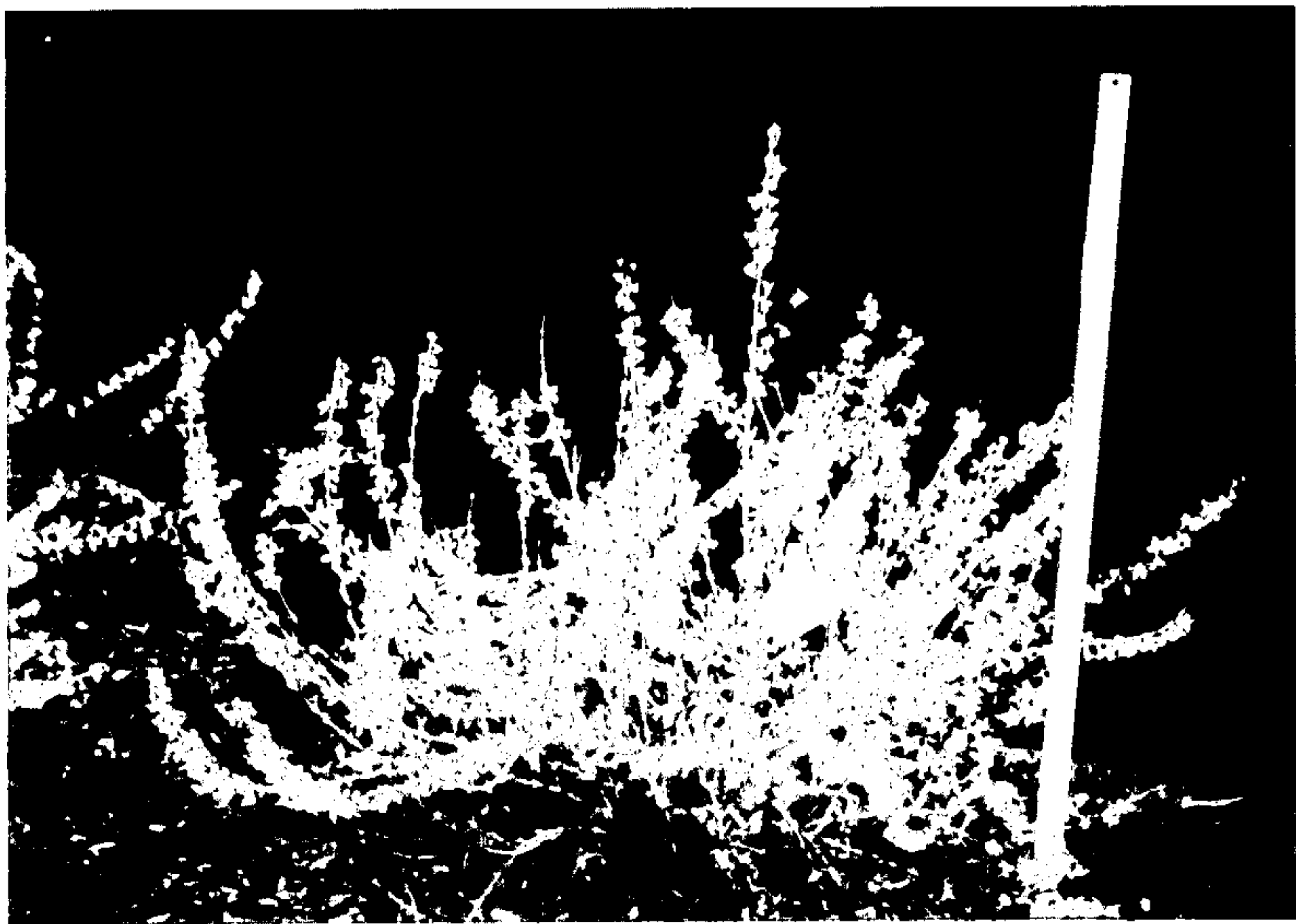


FIG. 1

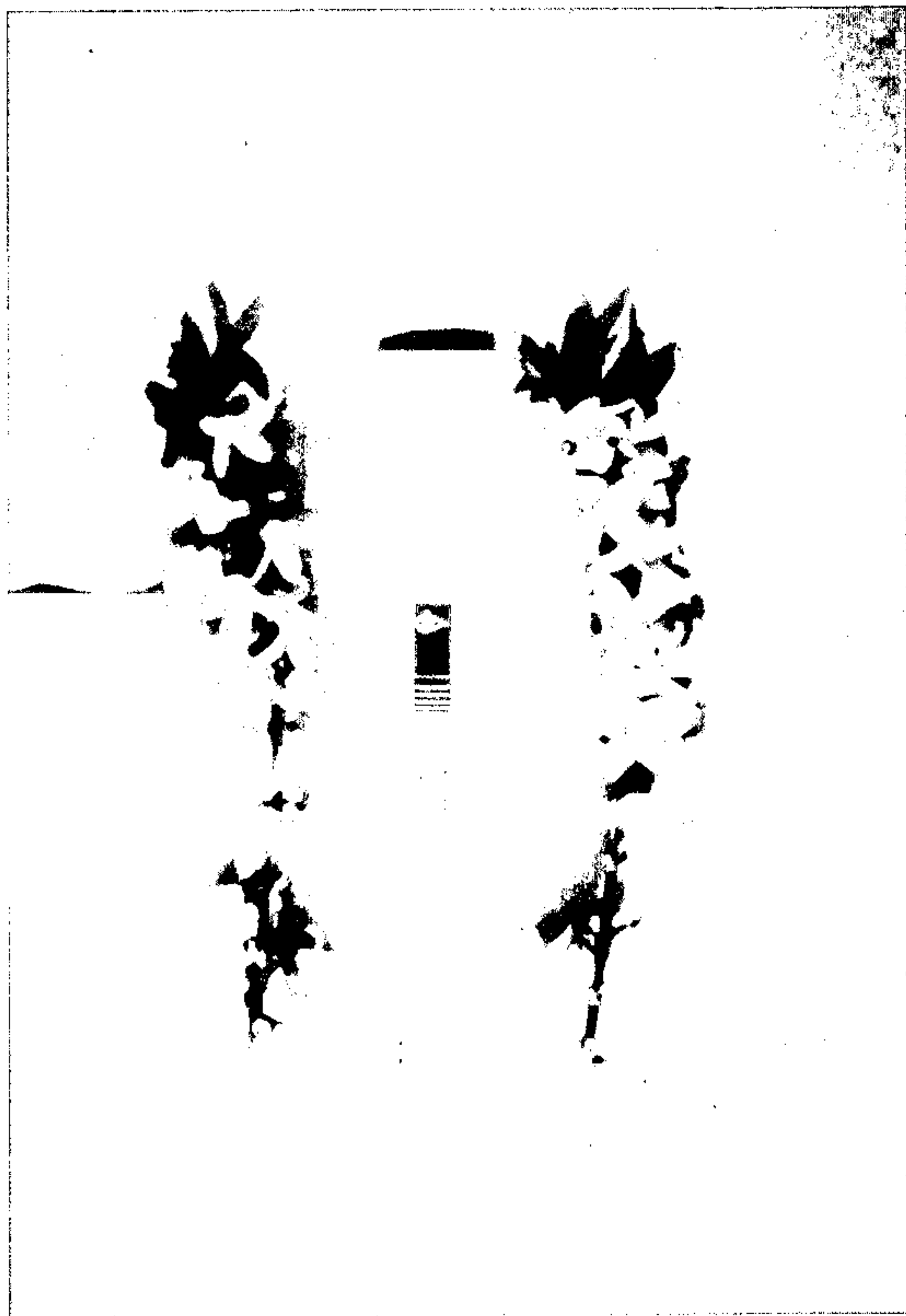


FIG. 2



FIG. 3



FIG. 4



FIG. 5