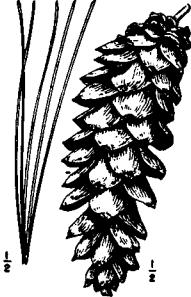
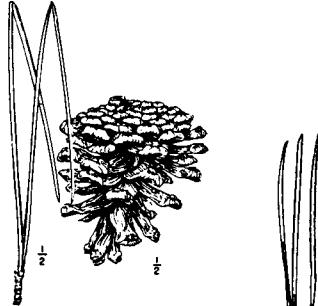




DISTINGUISHING CHARACTERISTICS OF 56 FOREST TREES






Kind	Leaves	Illustrations	Twigs	Fruit	Bark
Evergreens (Conifers or Softwoods)					
1. <u>White Pine</u> (<u>Pinus strobus</u>)	5 in cluster, 3" to 5" long.			Greenish cone, 4" to 10" long, hangs downward.	Dark green, smooth when young.
2. <u>Red Pine</u> (<u>Pinus resinosa</u>)	2 in cluster, 4" to 6" long. Break with a snap.			Oval cone 1 1/2" to 2 1/2" long.	Reddish brown with flat, scaly ridges.
3. <u>Pitch Pine</u> (<u>Pinus rigida</u>)	3 in cluster, 3" to 5" long.			Oval cone 1 1/2" to 3 1/2" long, stay on trees many years.	Rough, blackish.
4. <u>Red Spruce</u> (<u>Picea rubra</u>)	1/2" to 5/8" long, dark yellow-green, angular.		Bright reddish or orange-brown with fine gray or blackish hairs, roughened after leaf fall.	Egg-shaped cone, 1 1/4" to 2" long.	Made up of gray or red-brown scales.




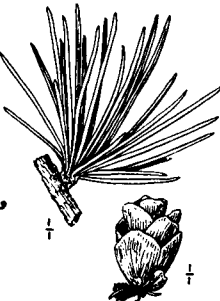
By Raymond T. Foulds, Jr.
Vermont Extension Forester

THE EXTENSION SERVICE, UNIVERSITY OF VERMONT, BURLINGTON, VERMONT


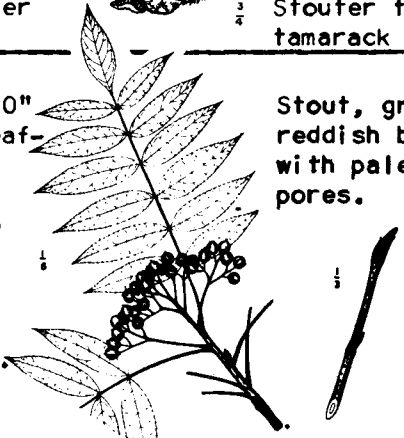
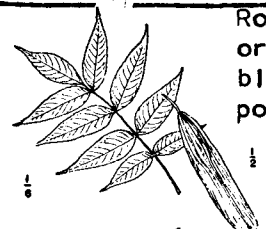

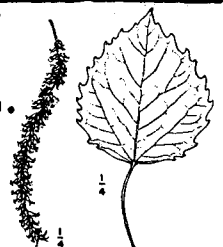
Issued in furtherance of Cooperative Extension Service work, Acts of Congress of May 8 and June 30, 1914, in cooperation with U.S. Department of Agriculture and Cooperative Extension Services of Conn., Del., Maine, Md., Mass., N.H., N.Y., Pa., R.I., and W. Va. R. P. Davison, Director of Extension Service, University of Vermont, Burlington, Vt. 05401.

DISTINGUISHING CHARACTERISTICS OF 56 FOREST TREES

Kind	Leaves	Illustrations	Twigs	Fruit	Bark
Evergreens (Conifers or Softwoods) cont.					
5. <u>White Spruce</u> (<u>"Cat" Spruce</u>) (<u>Picea glauca</u>)	1/3" to 3/4" long, blue-green, angu- lar.		Orange-brown or gray- ish, not hairy, whitened, roughened after leaf fall.	Oblong cone 1 1/2" to 2" long.	Ashy or brownish scales. Inner bark silvery.
6. <u>Black Spruce</u> (<u>Picea mariana</u>)	1/4" to 1/2" long, blue-green, angu- lar, blunt-pointed.		Cinnamon-brown with short pale or rusty hairs, roughened after leaf fall.	Egg-shaped cone 1/2" to 1 1/2" long. May remain on tree many years.	Grayish or reddish brown. Inner bark greenish.
7. <u>Norway Spruce</u> (<u>Picea abies</u>)	1/2" to 3/4" long, 4-sided, dark green, pointing upward and forward, surrounding twig.		Light orange-brown, rough after needles fall. Cone-shaped winter buds.	Light brown, 4" to 7" long, scales wedge-shaped and ragged, hang down- ward from topmost branches.	Reddish brown, scaly.
8. <u>Balsam Fir</u> (<u>Abies balsamea</u>)	Flat, with white bands below, 3/4" to 1 1/2" long, no stalks.		Greenish to gray, marked by smooth round spots after leaves have been shed.	Oblong, erect, greenish to purplish brown cone, 2" to 4" long.	Dull green or with gray blotches; also resin blisters.
9. <u>Douglas Fir</u> (<u>Pseudotsuga</u> <u>menziesii</u>)	Flat, yellow-green or blue-green, tip rounded on old needles, 3/4" to 1 1/4" long, short- stalked.		Dark green, smooth, buds conical, sharp- pointed.	Cone 2" to 4" long, hanging downward, with thin rounded scales.	Reddish brown, thick, deeply furrowed into broad ridges when old; smooth, thin, rather shiny, and with resin blisters when young.

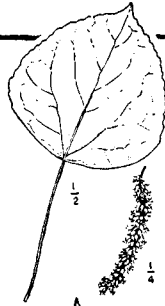
10. Eastern Hemlock (<u>Tsuga canadensis</u>)	1/3" to 2/3" long, flat, whitened beneath, appearing in two layers.		Roughened by leaf bases after leaf fall, dark brown.	Oval cone, 1/2" to 3/4" long, hanging down, red-brown color.	Grayish or purplish brown scales. Old rose color beneath.
11. Northern White Cedar (<u>Thuja occidentalis</u>)	Flat and scale-like. In flat, fanlike sprays.		Yellow-green, becoming light red, finally smooth, dark orange-brown.	An erect cone 1/3" to 1/2" long with tan-colored scales.	Reddish or grayish brown, soft and fibrous.
12. Eastern Red Cedar (<u>Juniperus virginiana</u>)	Young leaves 1/4" to 1/2" long, awl-shaped, loosely arranged. Old leaves scalelike, overlapping, 1/16" long.		Greenish to red-brown and smooth.	Berrylike cone, about 1/4" in diameter, dark blue, smooth.	Thin, light reddish brown, inner bark smooth, brown.
13. Tamarack (Eastern Larch) (<u>Larix laricina</u>)	3/4" to 1 1/4" long, soft, flexible, in clusters of 8 to many. Rounded above, keeled beneath. Bright green. Turn yellow, drop from tree in early autumn.		At first grayish, later light orange-brown, and finally dark brown.	An erect cone, 1/2" to 3/4" long, egg-shaped, light brown.	Gray or reddish brown, scaly. Bark sheds as small, irregular scales.

DISTINGUISHING CHARACTERISTICS OF 56 FOREST TREES

Kind	Leaves	Illustrations	Twigs	Fruit	Bark
Evergreens (Conifers or Softwoods) cont.					
14. European Larch (<u>Larix decidua</u>)	Similar to tamarack, but yellow-green on drooping branches, and slightly longer than tamarack.		Light yellowish brown, becoming gray-brown on older twigs. Stouter than tamarack twigs.	Larger than tamarack (often more than 3/4" long).	Grayish brown, scaly. Bark sheds as large, platelike scales.
Deciduous Trees (Hardwoods)					
15. American Mountain Ash (<u>Sorbus americana</u>)	Compound, 6" to 10" long, 13 to 17 leaflets. Leaflets stalkless. Sharptoothed along the margin.		Stout, grayish to reddish brown, marked with pale breathing pores.	Bright red, 1/4" in diameter.	Thin, light gray-brown on the trunk, smooth, or slightly roughened on old trees. Inner bark fragrant.
16. Black Ash (Brown) (<u>Fraxinus nigra</u>)	Compound, with 7 to 11 stalkless leaflets. Leaflets conspicuously toothed along margin.		Round, light gray or orange, smooth; buds black and sharp-pointed.	Seeds 1" to 1 1/2" long, in open clusters 8" to 10" long. Wing of fruit extends to base of seed.	Thin, soft ash-gray and scaly on the trunk. Flakes off on rubbing with the hand. Not furrowed.
17. White Ash (<u>Fraxinus americana</u>)	Compound, with 7 to 9 stalked leaflets, leaflets white on lower surface, smooth or finely toothed along margin.		Gray or light brown, often covered with a whitish bloom.	Samaras 1" to 2" long, in crowded, drooping clusters 6" to 8" long.	Gray, deeply furrowed into firm, narrow, flattened ridges on the trunk.
18. Large-toothed Aspen (Popple) (<u>Populus grandidentata</u>)	Simple, broadly egg-shaped, 3" to 4" across, coarsely toothed along margin. Stalk flattened.		Yellowish to orange or red-brown, covered with pale down.	Hairy capsules 1/8" long, borne in drooping catkins 1/4" to 6" long.	Greenish gray, becoming rough and black furrowed toward the base of the trunk.

19. Trembling Aspen
(Small-toothed Popple)
(Populus tremuloides)

Simple, egg-shaped to round, $1\frac{1}{2}$ " to 2" across, finely toothed along margin, with flattened stalks.



Lustrous, red-brown becoming grayish and roughened by the elevated leaf scars.

2-valved, short-stalked capsules $\frac{1}{4}$ " long.

White to yellowish green and olive green, smooth on young stems. Becomes thick and fissured, almost black at the base of old trunks.

20. Balsam Poplar
(Balm-of-Gilead, Tacamahac)
(Populus balsamifera)

Simple, oval, 3" to 5" long, long-pointed, rounded at the base, very finely toothed along margin, round leaf stalk. Dark green above, paler beneath.



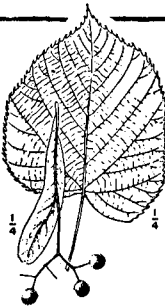
Stout, yellowish brown, and warty. Buds alternate, large, reddish brown, sealed with sticky and fragrant gum.

2-valved, short-stalked capsules $\frac{1}{4}$ " long, borne in drooping catkins $\frac{1}{4}$ " to 6" long.

Brown to gray, roughened by dark projections. Shallowly fissured into broad, rounded ridges.

21. Basswood (Linden)
(Tilia americana)

Simple, obliquely heart-shaped, 3" to 5" long, 3" to 4" wide. Dull green above, paler beneath. Margin toothed.



Smooth, reddish gray, becoming dark gray or brown. Buds ovoid, smooth, dark red, $\frac{1}{4}$ " long, lopsided.

Nutlike, woody, gray, about the size of peas, suspended in a cluster from the middle of a long, narrow, leaflike bract.

Dark gray, smooth on young stems, on old trunks thick, furrowed into broad scaly ridges.

22. Beech (Fagus grandifolia)

Papery, light yellow-green, simple, coarsely toothed with a vein ending in each tooth.



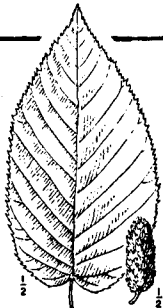
Lustrous olive green, finally changing through brown to ashy gray.

A prickly burr borne on a stout hairy stem, usually contains 3 nuts.

Close, smooth, steel gray on the trunk, often mottled by darker blotches or bands.

23. Black Birch
(Sweet Birch)
(Betula lenta)

In pairs, with strong spicy smell, egg-shaped, usually heart-shaped at base, simple, dark green above, pale green below.

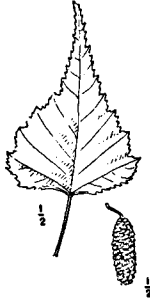
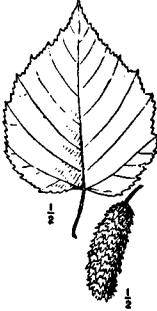
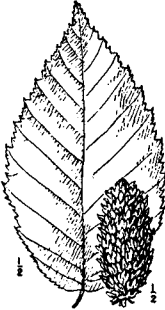



Smooth, shiny, reddish brown, with winter-green flavor.

Tiny scales of cones smooth, not minutely hairy along edges as in yellow birch.

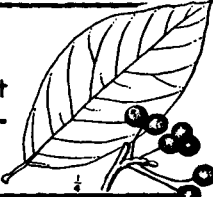


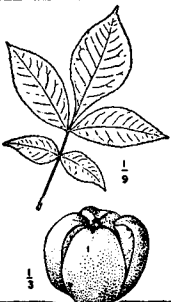

Dark red-brown, cleaving off in thick, irregular plates (resembles bark of black cherry).



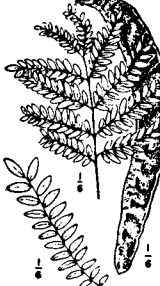


DISTINGUISHING CHARACTERISTICS OF 56 FOREST TREES

Kind	Leaves	Illustrations	Twigs	Fruit	Bark
Deciduous Trees (Hardwoods) cont.					
24. Gray Birch (<u>Betula populifolia</u>)	Thin, papery, yellow-green, triangular in form, with long tapered point.		Rough, dull greenish to brown.	Slender, short-stalked, conelike strobile. About 3/4" long.	Dark, dirty white, does not peel readily, not with spicy smell.
25. White Birch (Paper Birch, Canoe Birch) (<u>Betula papyrifera</u>)	Ovate to oval, dark green, doubly toothed, with round or wedge-shaped base. Leaf stalks short and hairy.		Rather stout, somewhat sticky, decidedly hairy, reddish brown.	Short-stalked, cylindrical, conelike strobile. About 1 1/2" long.	Dark creamy white, peels readily, not with spicy smell.
26. Yellow Birch (<u>Betula lutea</u>)	Like black birch, but has larger teeth and is firmer in texture. Leaf stalks often very hairy.		Dull, silvery gray to brown, usually smooth, sometimes hairy. Rather bitter.	An erect, ovate, short-stalked, cone-like strobile, 1" to 1 1/2" long. Tiny scales of the cones minutely hairy along edges.	On young stems smooth, shiny, golden yellow. Peels off in thin, filmlike, yellowish layers on larger trunks and branches.
27. Butternut (<u>Juglans cinerea</u>)	Compound with toothed edges, 15" to 30" long, with 11 to 17 leaflets. Leaflets 2" to 3" long, 1/2" to 2" wide.		Velvety cushion just above leaf scar. Stout, greenish gray, often downy, contain dark brown chambered pith.	In hanging clusters of 3 to 5, pointed and elongated, with sticky hairs when young.	Gray and smooth on young trees. Separates in wide, flat ridges on older trees.

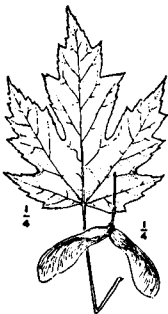

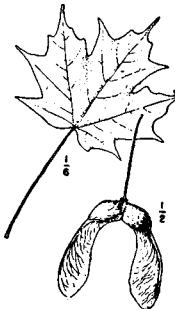

28. Black Cherry (<u>Prunus serotina</u>)	Simple, ovate, long-pointed, finely toothed along margin, 2" to 5" long, smooth and shiny.		Slender, reddish brown, sometimes covered with a grayish skin, usually with short spur shoots.	1/3" to 1/2" in diameter, almost black when ripe, flesh dark purple, skin thin.	Dark reddish brown to almost black, rough and scaly. On young stems smooth, bitter, reddish brown dotted with white lines.
29. Choke Cherry (<u>Prunus virginiana</u>)	Simple, oblong, short-pointed, finely toothed along margin, 2" to 4" long. Dull dark green above, paler beneath.		At first red-brown or greenish, becoming red-brown, finally dark brown.	Round, bright red, 1/4" to 1/2" in diameter, dark red flesh, arranged in drooping clusters.	Thin, dark brown (almost black), slightly fissured. Dotted with buff-colored lenticels. Very bitter.
30. Pin Cherry (Bird Cherry, Fire Cherry, Wild Red Cherry) (<u>Prunus pennsylvanica</u>)	Simple, ovate, long-pointed, finely toothed along margin, 3" to 5" long, shiny, smooth, green on both sides.		Shiny, smooth, bright red, marked by orange-colored lenticels, becoming brownish.	Round, small, light red, with thin and sour flesh, stone round.	Red-brown and thin, peeling off horizontally into broad, papery plates. Bitter, spicy.
31. Cottonwood (Necklace Poplar) (<u>Populus deltoides</u>)	Simple, triangular-shaped, flat stem, 3" to 5" across, coarsely toothed along margin, long-pointed, square at base.		Stout, ridged, yellowish, marked with grayish dots. Terminal buds 1/2" long, resinous, shining, brownish.	2 to 4 valved, short-stalked capsules, borne in drooping catkins 5" to 10" long. Seeds densely cottony.	Young stems smooth, yellow-green. Old trunks ashy gray, deeply divided into straight furrows with broad, rounded ridges.
32. Flowering Dogwood (<u>Cornus florida</u>)	Opposite, simple, about 3 1/2" long, with entire margin and curved veins.		Slender, purplish; angled; more or less covered with a whitish bloom. Terminal bud present.	Bright red, about 1/3" long, borne in a cluster.	Broken by deep fissures into small blocks - looks like alligator hide.
33. American Elm (White Elm) (<u>Ulmus americana</u>)	Simple, straight-veined, egg-shaped, unequally lobed at base, 4" to 6" long, 1/2 as broad, toothed, underside downy.		At first green and downy, later becoming red-brown, finally ash gray.	Flat, oval to ovate, papery, waferlike, with hairy fringe, about 1/2" long.	Ashy gray to brown, marked with long furrows. Alternate cream and brown layers.

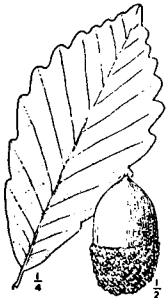
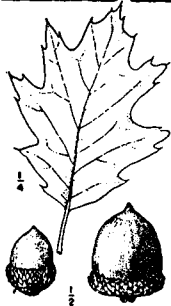
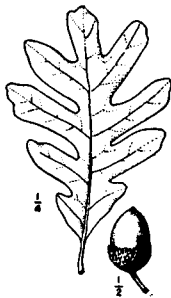
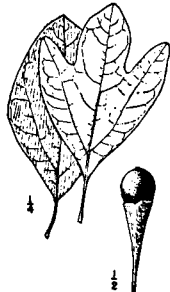
DISTINGUISHING CHARACTERISTICS OF 56 FOREST TREES

Kind	Leaves	Illustrations	Twigs	Fruit	Bark
Deciduous Trees (Hardwoods) cont.					
34. Black Gum (Black Tupelo, Sour Gum) <u>(<i>Nyssa sylvatica</i>)</u>	Alternate, simple, about 4" long; widest above the middle; en- tire on the margin; leathery texture.		Slender to moderately stout. Short spur shoots usually present. Leaf scars conspicuous.	Blue-black berry- like, bitter, 3/8" to 1/2" long, one- seeded.	Reddish brown, broken into irregular ridges and lozenge-shaped plates.
35. Bitternut Hickory (<i>Carya cordiformis</i>) <u>(<i>Hicoria cordi-</i> <i>formis</i>)</u>	Compound, 6" to 10" long. Leaflets 5 to 9, without stalks, lance- shaped, 2" to 6" long, long-pointed, finely toothed, more or less hairy beneath.		Gray and smooth. Buds long, yellow. Terminal bud flattened and blunt-pointed, lateral ones smaller and al- most round.	Thin-shelled white nut with small bitter kernel, covered with thin husk that does not split freely.	Light gray, thin, does not peel in shaggy plates, roughened by shallow furrows.
36. Pignut Hickory <u>(<i>Carya glabra</i>)</u>	Alternate, compound, with 5 to 7 oblong, thick leaflets, usual- ly without hairs on lower surface. Sharply toothed, 8" to 12" long.		Greenish, becoming reddish, and finally grayish.	White oval nut with thick bony shell, small kernel, and thin husk that does not split freely. Pear-shaped to round, about 1" long.	Dark to brownish gray, rarely peels off in shaggy plates, usual- ly smooth or furrowed.
37. Shagbark Hickory (Shellbark Hickory) <u>(<i>Carya ovata</i>)</u>	Compound, 8" to 14" long, with 5 to 7 rather large leaf- lets, without stalks except the terminal leaflet.		Brownish, more or less downy, becoming smooth and grayish.	White nut with sweet kernel, and thick husk, round, 1" to 2" in diameter. Husk splits freely.	Light gray to green- ish brown, peels off in long shaggy plates 1" to 3" long on big trunks, free at one or both ends, giving a characteristic shaggy appearance.
38. American Hornbeam (Blue Beech, Water Beech) <u>(<i>Carpinus</i> <i>caroliniana</i>)</u>	Alternate, simple, ovate, 2" to 4" long, sharp-pointed, rounded or wedge- shaped at base, finely toothed along margin. Turn to a brilliant orange-red or deep cinnamon in autumn.		Slender, reddish to orange, becoming lustrous, dark red the first winter.	A small, ribbed nut, about 1/3" long, partly enclosed by 3-lobed leaflike bract.	Twisted, fluted, muscular trunk, dark bluish gray in color.

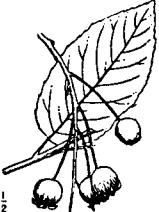
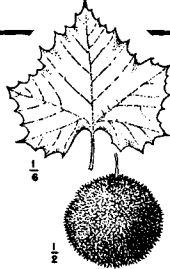
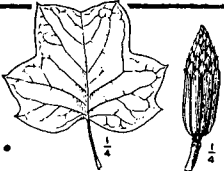


39. Hop Hornbeam (Hardhack, Leverwood, Ironwood) (<u>Ostrya virginiana</u>)	Alternate, simple, oblong, long-pointed, rounded or heart-shaped at base, finely toothed on margin. Become clear yellow in autumn.		Light orange to reddish brown, slender and smooth, becoming dull dark brown.	Hoplike, a papery bag containing a small brown nutlet; arranged in drooping clusters.	Young bark dull brown, warty. Older bark "shreddy" in appearance, ash gray, broken up into small, shaggy plates, some of which curve away from the trunk.
40. Black Locust (Common Locust, Yellow Locust, White Locust) (<u>Robinia pseudoacacia</u>)	Compound, alternate, 7 to 21 leaflets, edges of leaflets smooth, leaves 8" to 14" long, leaflets egg-shaped.		Brittle, reddish brown, with 2 short spines (thorns) at each node.	Dark brown pods 2" to 4" long with 4 to 8 dark brown seeds.	Dark red-brown and thick on old trunks, deeply furrowed into firm, wavy ridges.
41. Honey Locust (<u>Gleditsia triacanthos</u>)	Alternate, once or twice compound, with an even number of small leaflets.		Smooth, glossy, brown, rather slender; bear large, 3-pronged thorns.	A thin, flat, reddish brown pod, 10" to 18" long, containing many flat, oval, brownish seeds.	Grayish brown to almost black, usually smooth, on stems roughened by shallow furrows. Thorns on larger branches and main stem.
42. Mountain Maple (<u>Acer spicatum</u>)	Opposite, simple, conspicuously veined 3 to 5-lobed, coarsely toothed, 4" to 5" long, 2" to 3" wide. Dark green above, with whitish down beneath.		Reddish, slightly hairy. Small, short-stalked, opposite buds.	Small maple key about 1/2" long, arranged in drooping clusters.	Very thin, red-brown, smooth or slightly furrowed on the trunk.
43. Red Maple (White Maple, Soft Maple, Swamp Maple) (<u>Acer rubrum</u>)	Opposite, simple, 3 to 5-lobed, whitish on lower surface. Leaf clefts shallow and sharp-pointed at base. Bright red in autumn.		Reddish with white dots. Buds round, red.	Flowers appear before leaves. Fruit ripens in early summer. Keys are small, arranged in short lateral clusters.	Grayish, smooth on younger trees, somewhat scaly and almost black on older trees. Inner bark reddish.

DISTINGUISHING CHARACTERISTICS OF 56 FOREST TREES

Kind	Leaves	Illustrations	Twigs	Fruit	Bark
Deciduous Trees (Hardwoods) cont.					
44. Silver Maple (White Maple, Soft Maple, River Maple) (<u>Acer saccharinum</u>)	Simple, opposite, 5-lobed, silvery white on lower sur- face, leaf clefts deep and round based.		Greenish to reddish brown, sometimes bright red. Rank- smelling when broken. Tips of branches curve upwards.	Flowers appear be- fore leaves, in dense red clusters along twigs. Fruit matures in early summer. Key is large, with rather divergent wings.	Dark gray; when old separates into long, thin flakes loose at the ends.
45. Striped Maple (Moosewood) (<u>Acer pennsylvanicum</u>)	Simple, opposite, goose footlike, 5" to 6" long, 3-lobed at apex, finely toothed, prominently veined.		Light green, mottled with black, smooth. Buds reddish to bright red, with terminal buds usual- ly 1/4" to 1/2" in length, on stalks.	Ripe in autumn, small maple keys about 3/4" long arranged in open, drooping clusters.	Green-and-white striped lenthwise. A small, bushy tree. Older bark reddish brown streaked with white lines.
46. Sugar Maple (Rock Maple, Hard Maple) (<u>Acer saccharum</u>)	Simple, opposite, usually 5-lobed, coarsely toothed, blunt-pointed, pale green on lower sur- face.		Brown, buds pointed, with 8 to 10 exposed scales.	Ripe in autumn. Medium-sized maple key borne on long stalks and cluster- ed.	Gray to black, not scaly. Dark gray and smooth on branches, almost black on main trunk, with long thick plates.
47. Black Oak (Yellow Oak, Yellow-bark Oak) (<u>Quercus velutina</u>)	Simple, alternate, broadly oval, 4" to 10" long, 3" to 6" wide, usually 7-lobed with bristle tips. Thick and leathery. Shiny dark green above, pale below.		At first softly hairy, later smoother, with red-brown color, finally mottled with gray.	Ripe autumn of second season. Short-stalked acorn, cup en- closing about half of nut. Nut kernel yellow, bitter.	On young stems smooth and dark brown. On old trunks, thick, rough, deep-furrowed, black. Inner bark yellow and bitter.

<p>48. Chestnut Oak (Rock Oak, Rock Chestnut Oak) (<u>Quercus prinus</u> L.)</p>	<p>Simple, alternate, inversely ovate, 5" to 7" long, sharp-pointed at apex, wedge-shaped at base, coarsely toothed along margin, not lobed, teeth rounded, thick and firm, almost leathery.</p>		<p>Orange to reddish brown, sharp-pointed buds covered with bright, chestnut-brown scales.</p>	<p>A large acorn that ripens in one season, 1" to 2" long. Cup is thin, deep, hairy inside, covered with knobby dark scales.</p>	<p>Brown to black, on older trees very deeply furrowed. Cinnamon-red at bottom of furrows.</p>
<p>49. Red Oak (Northern Red Oak) (<u>Quercus borealis</u> <u>Quercus rubra</u>)</p>	<p>Deeply cut, with bristle-tipped points. Alternate, simple, 5" to 9" long, $\frac{1}{4}$" to 6" broad, with 5 to 11 lobes.</p>		<p>Lustrous, green, becoming reddish, finally dark brown. Buds clustered at end of twigs, $\frac{1}{4}$" long.</p>	<p>Ripen in 2 seasons. Large, with very shallow cups. Cup bowl-shaped. Nut about 1" long.</p>	<p>On young trees smooth, shiny gray to brown. On old trunks darker, shallowly fissured into thin, firm broad ridges.</p>
<p>50. White Oak (<u>Quercus alba</u>)</p>	<p>Alternate, simple, inversely ovate, 5" to 7" long, 2" to $\frac{1}{4}$" wide, with 3 to 9, usually 7, rounded lobes separated by deep clefts, deep green above, pale green below.</p>		<p>At first bright green, later reddish, and finally ash gray.</p>	<p>Ripe in autumn of first season. About $\frac{3}{4}$" long. Cup covered with thin flat scales near rim and knobby scales near base. Is edible.</p>	<p>Thick, light gray, or whitish on old trunks, shallowly fissured into broad, flat ridges.</p>
<p>51. Sassafras (<u>Sassafras albidum</u>)</p>	<p>Aromatic, alternate, simple, $\frac{1}{4}$" to 6" long, 2" to $\frac{1}{4}$" wide, elliptical to oval. Either unlobed, mitten-shaped, or 3-lobed.</p>		<p>Bright green, smooth, aromatic.</p>	<p>Dark blue, about $\frac{1}{2}$" long, borne on a red, fleshy stalk.</p>	<p>Reddish brown, deeply furrowed into blocky ridges with frequent horizontal cracks.</p>

DISTINGUISHING CHARACTERISTICS OF 56 FOREST TREES

Kind	Leaves	Illustrations	Twigs	Fruit	Bark
Deciduous Trees (Hardwoods) cont.					
52. Shadbush (Serviceberry, Juneberry) (<u>Amelanchier arborea</u>)	Alternate, simple, 3" to 4" long, $\frac{1}{2}$ " to 2" wide, finely and sharply toothed. Stalk slender, about 1" long.		Smooth, light green, becoming red-brown. Buds long, slender, conical. Resemble beech, but have no stipule scars.	Attractive white flowers in April or May when leaves are about half grown. Fruit a purple berrylike pome, sweet and edible.	Smooth, grayish, often marked with black streaks. A small tree 15' to 30' high.
53. Sycamore (Buttonwood) (<u>Platanus occi- dentalis</u>)	Alternate, simple, 5" to 10" long and broad. More or less 3 to 5-lobed by broad, shallow sinuses. Sharp-toothed, thin and firm.		Pale green, becoming smooth, dark green, finally grayish.	Ripe in October, stay on tree during winter. Brown heads about 1" in diameter, on slender stems 3" to 6" long.	Thick, red-brown on the trunk and broken into oblong, plate-like scales, separating higher up into thin plates which peel off, exposing the greenish or yellowish inner bark.
54. Tuliptree (Yellow-poplar, Whitewood) (<u>Liriodendron tulipifera</u>)	Unusual squarish shape, 2 to 3 lobes on each side, 3" to 6" long. Looks like tip has been cut off.		Moderately stout, reddish brown, often with a purplish bloom, dark red buds, prominent leaf scars.	$2\frac{1}{2}$ " to 3" long, conelike, erect, $\frac{1}{2}$ " thick. Is made up of angled "seeds."	Brown, becoming thick and deeply furrowed. Inner bark with bitter taste. Young bark dark green and smooth.
55. Thornapple (Hawthorn, Cock- spur Thorn) (<u>Crataegus sp.</u>)	Inversely ovate to elliptical, with short, flattened leaf stalks.		Reddish brown, with small rounded buds, and long, usually unbranched chestnut-brown thorns.	Pinkish flowers appear in May or June. Fruit is red to yellow, sometimes blue or black, an applelike pome, with dry and mealy flesh and 1 to 5 seeds.	Grayish, shallow fissured or scaly. A small tree, often found in pastures.
56. Black Willow (<u>Salix nigra</u>)	Slender, long-pointed and finely toothed, about 3" long. Often in shape of sickle. Two round leaf-appendages that hug the twig where the leaf stalk meets it.		Slender, smooth, brittle, reddish brown to orange, tend to droop. Buds small, sharp-pointed.	$\frac{1}{8}$ " long, conelike, short stalked, borne in catkins. Seeds have tufts of fine hair.	On old trunks becomes rough and blackish brown. Tree grows along streams on wet soils.