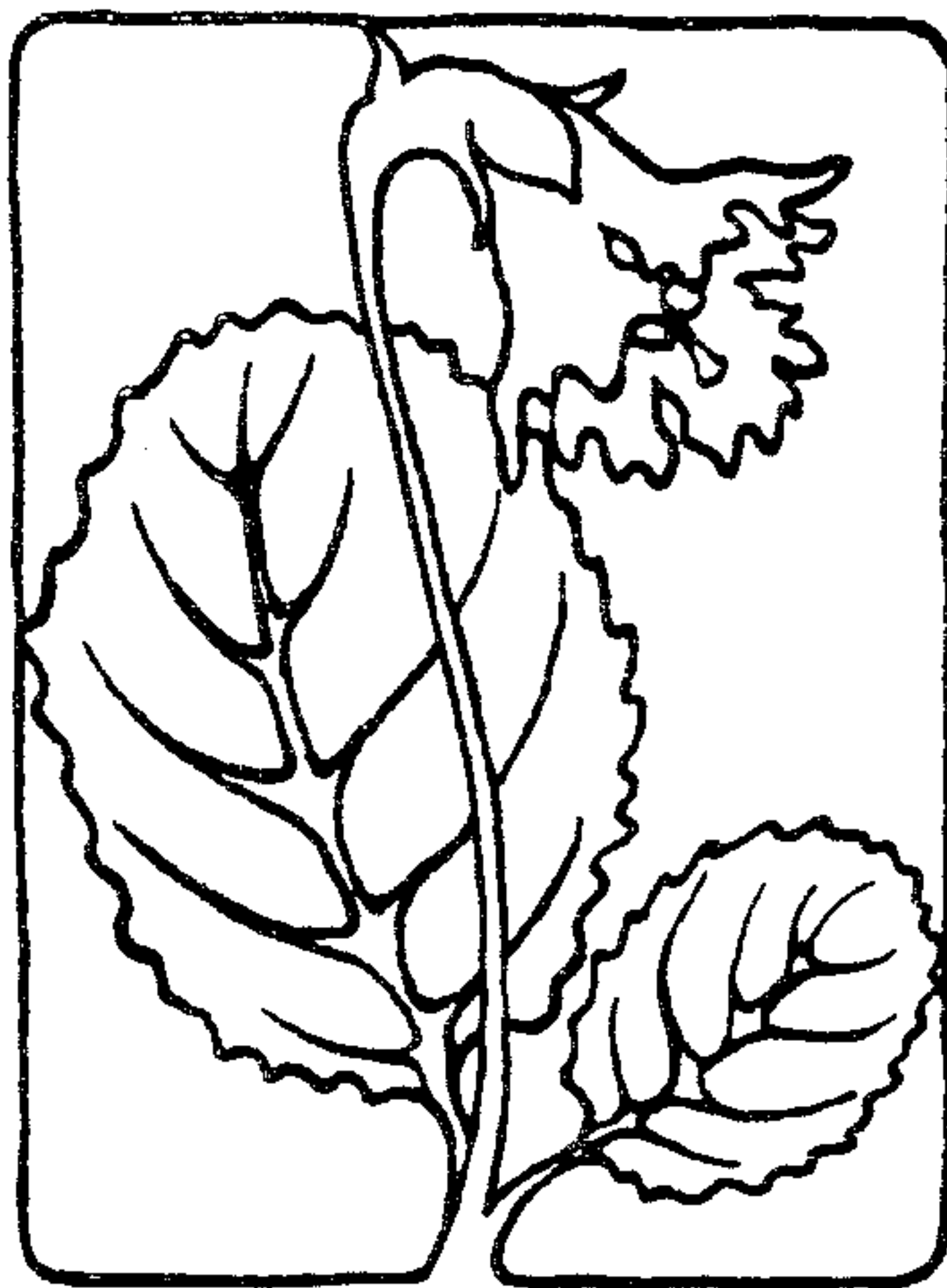


SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB

SUMMER 1989



DOROTHY RATHMANN, Editor

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FROM THE PRESIDENT'S DESK.....Bill Verduin

Are you a beginner, somewhat overwhelmed by all the names -- both common and Latin -- that you hear on every field trip? Well, names are important -- you don't really know a plant until you can call it by name. So accept the challenge to learn at least a few common names as a starter. C'm'on, you'll have lots of fun.

Start by getting a good field guide. Most of us think Newcomb's Wildflower Guide is the best for our area. The author is Lawrence Newcomb. Your only other tool will be a small hand lens, preferably 10x and convenient to carry.

Spend a little time with the introductory material in Newcomb, preferably sitting out in a field or beside the road where you can find examples of what is pictured and discussed. Try using the key starting on page 1. If it doesn't make much sense try with a different plant, something simple like cinquefoil or sundrops. Keep trying.

Most important is to attend the field trips and to ask questions. One of the best features of our Club is that we have many experienced people who really enjoy sharing what has given them so much pleasure. Don't hesitate to ask questions -- even the same question several times. Sure, a lot of questions may slow down the group but the learning experience is top priority with the Club and must be allowed to set the pace. Note to trip leaders: keep in touch with the end of the line -- if there is teaching and learning taking place, do not pressure them to catch up by getting too far ahead. Share something with those near you, or just wait patiently.

Make every effort to attend the workshops we will have on Plant Families. We are planning these to be of special help to beginners and intermediates. If you can recognize some characteristic common to only one or two families, you have immediately narrowed the area in which to search for a name.

It's a lot of fun -- and if you work at it just a little, you'll be surprised at how soon you, too, will be calling your flower friends by their first names.

ENCORE.....Ruth Mack

Are you familiar with the ditty: "Second verse -- same as the first?"

Last year I gave an abbreviated version of the Cade's Cove overnight, and it was filled with superlatives. This is where the ditty comes in. "Second verse -- same as the first." Well ... almost.....

1988

1989

Area visited: Awesome!

Ditto.

Weather: Perfect

Lucked out again.

Flowers: Spectacular!
Superabundant!

A tad less in number, but a tad less than super-abundant is more than sufficient.

Lodging: Spacious
Each with refrigerator

Ditto.

Participants: Enthusiastic!

Ditto.

Leadership/Organization:
Flawless!

Alas, herein lies the rub. EH lost his way, not once -- but twice!

Last year Elton Hansens led us on a "quiet walk." We were instructed not to speak but to use our ears as well as our eyes as we walked. This was repeated this year. We listened to the sounds of the forest -- the stream -- and especially the birds. It was early in the morning, and they put on quite a concert. Some of us walked hand-in-hand. It was a moving experience.

Add to the above the magnificent display of dogwood ('89 was certainly their year) and two glorious sunsets!

Did we enjoy it? You bet! And those who participated wish to thank Bill Verduin (and Evelyn) and Elton Hansens (and Aline) for a job well done again!

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* New members.

RECORDER'S REPORT.....Bessie Sinish

Winter is well past. Spring burst out all over and Summer is yet to be.

The winter programs were well attended and gave us a better understanding of fire management in our national parks; informed us that when beautiful plants become troublesome to man or beast, they become weeds. The programs, also, made us aware that the barks of trees as they mature do change their appearance; and they showed us the beautiful flowers of the Bruce Peninsula which juts out into Lake Huron, Toronto, Canada. While anticipating Spring, programs on "Nature's Potpourri", "What are Birds For?" and a trip to the Orchid Greenhouses of the Owen's on Route 64 West helped prepare us for the warm seasons of Nature's great outdoors.

Spring was troublesome -- cold and wet. Many trips had to be cancelled. When seen, the populations of plant colonies were smaller than usual. Was this due to the drought of the last two years, or was it due to the season's slow start?

The Smokies in the Spring! Where else to see, to hear, to smell, to feel the pulse of Nature. Thank you, Bill Verduin, for your enthusiasm, your planning, sharing your expertise and your love for that great world to the west and north of us.

Have you noticed that our WCBC field trips take us to various habitats? Sometimes to wet areas around rivers, streams and springs -- to cold valleys -- under the canopies of evergreen or deciduous forests -- on a Bald -- and to areas with sandy or rocky bottoms. All show a varied group of plants -- each area having its own particular species. As Anne Ulinski pointed out in her annual report, "One more step in our identification skills would be a greater emphasis on habitat."

Now, after a period of ten years and more of recording every flower in bloom on every trip, the recorder with a committee of four members -- Elton Hansens, LaVerne and Bud Pearson, Grace Rice -- have as their objectives:

- to record the rare or unusual flower (and some ferns, trees, lichens and mosses) and large masses of flowers seen on a trip
- to learn of the different habitats visited, paying attention to what grows in each type. For example, an evergreen forest or a bog or an open field.
- to follow the succession of plants during the different seasons by returning to a specified area many times
- to study the importance of plants in the ecological system.

A big challenge! Yet, our field trips are for learning and sharing. Do come, share and learn with us all.

COVE FOREST HABITAT.....Elisabeth Feil

I am willing to bet that any one of us wildflower nuts, when thinking of "woods," conjures up a picture of the cove forest: a lush carpet of herbs on the forest floor in spring, cool shade in summer, a riot of bright colors in fall, and towering trees with mighty trunks in winter.

What is this forest type that stirs our imagination in such a way?

Cove forests occur in the most mesic (moist) valley bottoms and on lower slopes in the Southern Appalachian mountains where they are protected from the drying effects of wind and sun. They are considered to be stable communities, which means they are self-perpetuating. Mature stands are characterized by the presence of all age groups of the dominant tree species.

Most of the cove forests have been cut over for timber with a few notable exceptions that I know of, such as, Joyce Kilmer Memorial Forest and some remote coves in the Smoky Mountain National Park. But even these may not be totally "virgin," because the early settlers often let cattle graze in the woods.

Soils in these forests are rich in organic material and nutrients, and deep even in rocky areas. One reason is that on lower slopes and in valleys, nutrients accumulate that have been leached out of the soils on higher slopes. The richness of the soil is also caused by rapid nutrient cycling. The freshly fallen leaves are quickly broken down by decomposers that thrive in the moist warmth of the soil, so that most of the nutrients are available for use again the next spring.

Deciduous trees are dormant during the winter and do not start their active nutrient uptake until they sprout new leaves in the spring. This is the niche that the spring wildflowers have captured for themselves. These small plants take advantage of the abundance of nutrients in the soil and the sunlight that reaches the forest floor in early spring. Some of them, the true spring ephemerals, have fully completed their yearly life cycle by the time the canopy closes and are then no longer part of the ever-changing scene on the forest floor.

One of the characteristics of the cove forest is the presence of several mesic tree species that share dominance. The most common species of canopy trees are American beech (Fagus grandifolia), basswood (Tilia heterophylla), eastern hemlock (Tsuga canadensis), silverbell (Halesia carolina), sweet birch (Betula lenta), sweet buckeye (Aesculus octandra), white ash (Fraxinus americana), and yellow poplar (Liriodendron tulipifera). Yellow poplar tends to be dominant where the forest has been cut recently.

The understory is open and may include American holly (Ilex opaca), cucumber tree (Magnolia acuminata), dogwood (Cornus florida), hop hornbeam (Ostrya virginiana), red maple (Acer rubrum), and others. There are only a few shrub species growing in the cove forest, which contributes to its open appearance. Spicebush (Lindera benzoin) is the

earliest of the shrubs to bloom; alternate-leaved dogwood (Cornus alternifolia), and Viburnum spp., and wild hydrangea (Hydrangea arborescens) follow in late spring and summer, and witch hazel (Hamamelis virginiana) late in the fall. Sometimes along streams under eastern hemlock (Tsuga canadensis), rosebay (Rhododendron maximum), often along with dog hobble (Leucothoe axillarum var. editorum) forms dense thickets that are almost devoid of any herbs.

What makes the cove forest so special for the wildflower enthusiast, however, is the profusion of spring wildflowers. Bloodroot (Sanguinaria canadensis) is the first to create bright spots on the as yet bare forest floor, soon to be followed by a host of others. Among the spring ephemerals are Dutchman's breeches (Dicentra cucullaria), spring beauties (Claytonia spp.), trout lily (Erythronium americanum), and toothworts (Dentaria spp.). Some of the species that need longer to complete their life cycles are blue cohosh (Caulophyllum thalictroides), black cohosh (Cimicifuga racemosa), false goat's beard (Astilbe biternata), Canadian violet (Viola canadensis), sweet cicely (Osmorhiza spp.), trilliums (Trillium spp.), waterleaf (Hydrophyllum spp.), yellow mandarin (Disporum lanuginosum), Solomon's seal (Polygonatum biflorum), Solomon's plume (Smilacina racemosa), foamflower (Tiarella cordifolia), mayapple (Podophyllum peltatum), Jack-in-the-pulpit (Arisaema triphyllum), wild ginger (Asarum canadense), jewel weed (Impatiens spp.), enchanter's nightshade (Circea lutetiana ssp. canadensis), and many others too numerous to list.

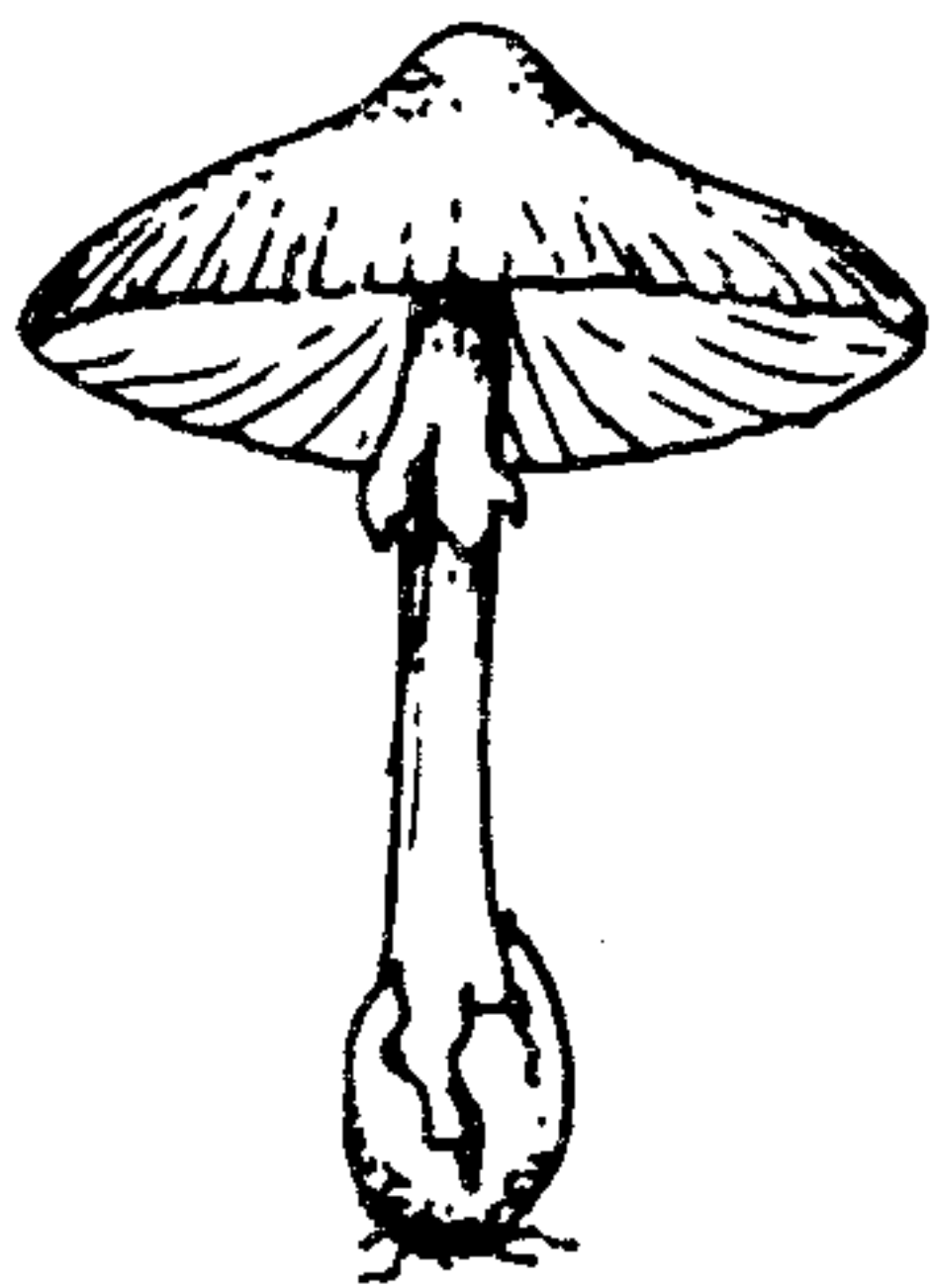
Many ferns may be found in the cove forest: Maidenhair fern (Adiantum pedatum), walking fern (Asplenium rhizophyllum), ebony spleenwort (Asplenium platyneuron), maidenhair spleenwort (Asplenium trichomanes), southern lady fern (Athyrium asplenioides), glade fern (Athyrium pycnocarpon), silvery spleenwort (Athyrium thelypteroides), fragile fern (Cystopteris protrusa), shield ferns (Dryopteris spp.), Christmas fern (Polystichum acrostichoides), broad beach fern (Thelypteris hexagonoptera), New York fern (Thelypteris noveboracensis), blunt-lobed woodsia (Woodsia obtusa), and more.

If we allow ourselves to make a moral pronouncement about nature, we might say that cove forests "deserve" our special love since they have the highest species diversity in our mountains. On the other hand, I am also perfectly content to walk through a spruce-fir forest to look at a carpet of wood sorrel or to slosh through a swamp to admire a single bog-rose.

Ed. Note: This article about the Cove Forest Habitat is the first in a series planned to be written by various Club members, each writing about a different habitat which we might encounter on our field trips. Please give Bill Verduin or me your comments about these articles.

LOOK AGAIN !

At one extreme the Amanitas include the deadliest of all fungi, and at the other some of the most delectable of edible mushrooms. In between, there are others capable of causing nausea, serious illness or hallucination. There are combinations of characters by means of which, theoretically, we should be able to single out the comestible species, but the possible consequences of misidentification should deter amateurs (as they have many professionals) from considering any member of this genus as food.



A. CAESAREA

Caesar's Mushroom (Amanita caesarea) is not only reputed to be delicious but is very beautiful, with a smooth cap gradated from yellow-orange at the striate margin to red-orange toward the domed center. The stalk and its ring, as well as the gills, are a delicate lemon. All this emerges from a snow-white volva which looks very much like half of a broken eggshell.

There is a pretender, however--rarer than Caesar's Mushroom and generally restricted to the Northeast but also found in North Carolina. It is known as Amanita parcivolvata (at one time it was placed in the genus Amanitopsis because of the absence of a ring). Other differences are that the volva is fragile and evanescent, and the cap often carries remnants of the veil in the form of powdery yellowish particles.



A. MUSCARIA

Our only other mushroom approaching these in appearance is the common Fly Agaric (Amanita muscaria). Here the cap may vary in color from straw yellow to cherry red, and bears numerous white velar warts or patches. The other parts also are white, and the only vestiges of the torn volva are several concentric circles of fluffy scales above the bulbous base of the stalk.

Dick Smith

S H O R T I A

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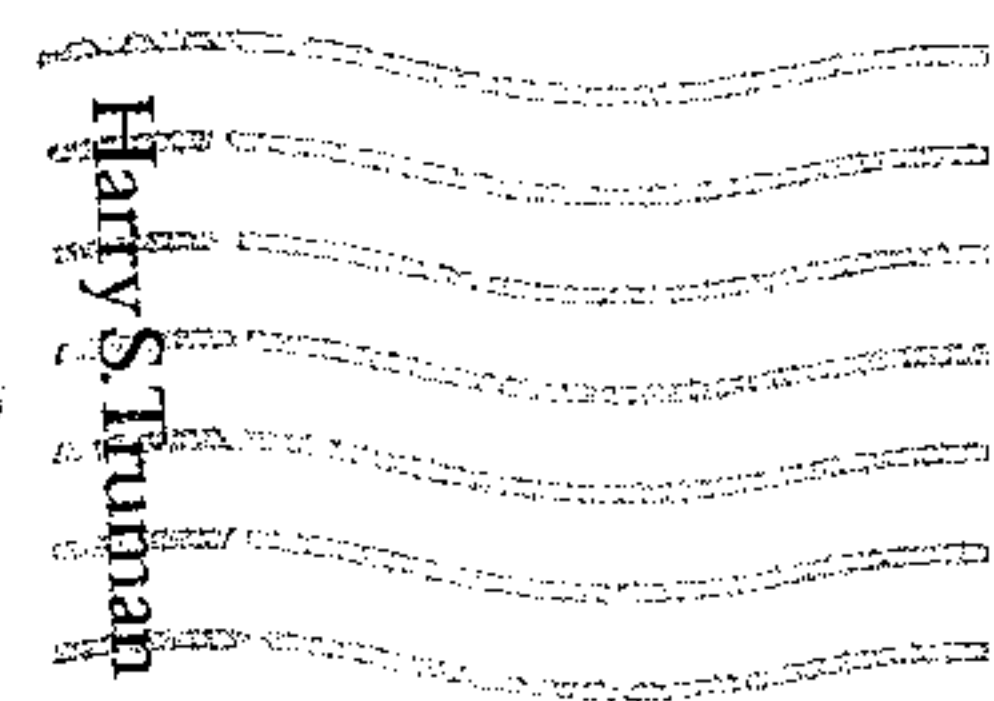
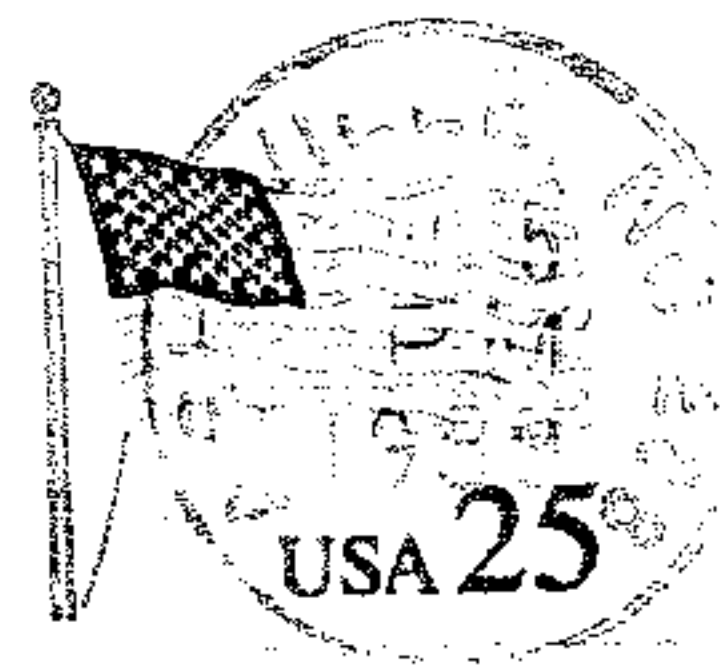
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