

tion is not uncertain; that by a still closer union with its parent, its hopes of a wider sphere of usefulness are to be realized; and that, in the future even more than in the past, its ideals will be cherished by that organization which safeguards the true spirit of the game, the United States Golf Association.

H. L. WESTOVER,  
*Acting Chairman.*

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## Troublesome Weeds of the Rough

By L. W. Kephart and M. W. Talbot

There is today, both in course construction and maintenance, a definite tendency toward the lessening, if not elimination, of the influence of luck in the playing of golf. This fact is deplored by many golfers, particularly those of the older school, if such an expression may properly be used to describe the men whose devotion to the spirit of the game has done so much to popularize it in this country, but in any event the tendency seems to be a very definite one.

Long, skillful, and accurate play is rewarded by both architect and greenkeeper, and wildness punished. Unfortunately, on many courses extreme wildness, particularly from the tee, is often penalized less than the shot which is only a little off the fairway. While this condition is frequently unavoidable on parallel holes because of lack of space, where more acreage is available there is now quite generally an effort to make the punishment fit the crime, at least so far as the condition and quality of the rough is concerned.

So the rough has been shorn of indiscriminate roughness until on the best kept courses it is designed to provide exactly so much handicap for the errant shot, and no more nor any less. Play from it should be increasingly difficult as it recedes from the fairway but should never be impossible.

The ideal rough is, therefore, one that provides a difficult but not insuperable problem: it furnishes a lie everywhere inferior to one on the fairway, and while comparatively cuppy its vegetation is not dense enough to cause frequent loss of balls or serious interference with the backswing.

There are really very few plants common in this country that meet all these requirements, the list being confined very generally to Canada bluegrass, sheep's fescue, and a few of the bunch grasses. All other plants are weeds, so far as the rough is concerned. Even Kentucky bluegrass, the invaluable friend of the fairway, is unsuited for the rough because when long it makes a thick dense mat in which the ball too often sinks out of sight and in which it is impossible to get a fair backswing. Rarely does the native vegetation provide good rough, for it usually consists of Kentucky bluegrass, clover, or of big coarse weeds and vines that swallow a golf ball at one gulp and hold it against the onslaught of any club except a niblic. As a rule the native vegetation can be destroyed and good rough established by scraping away the surface of the ground and sowing fescue or Canada bluegrass. Sometimes, however, the old vegetation persists, in which case a real weed problem exists and must be handled.

During the next few months THE BULLETIN will contain short articles on the Troublesome Weeds of the Rough. These will deal

with the kinds of plants that are especially objectionable in the rough, with suggested methods for their destruction or control.

### 1. Poison-Ivy

One of the most common and certainly one of the most undesirable weeds around a golf course is poison-ivy. Although the reputation of poison-ivy is well known, a surprisingly small number of persons recognize it when they see it with the result that much suffering and distress follows cases of ivy poisoning contracted unawares by golfers while playing a ball out of the woods. Obviously, a plant of this character has no place around a golf course. Aside from its virulence, poison-ivy is undesirable because of its viney character. A ball driven into it is lost to sight and difficult to find. If found, it is difficult to extricate; consequently, poison-ivy would be taboo in the rough even though it were innocuous otherwise.

**Identification of Poison-Ivy.** Several closely related plants belonging to the sumac family and called poison-ivy, poison-oak, or by various other local names, are of wide occurrence in the United States. The several kinds differ chiefly in growth habit, shape of leaflets, and size of fruits. Figure 1 illustrates the species especially common in the eastern and central sections of the country. It is usually called poison-ivy, but is known locally as poison-oak. In the Pacific Coast region a different species generally known as poison-oak is a bush with leaflets resembling the leaves of western oaks.

Poison-ivy thrives in woods and in the open, on comparatively dry as well as damp soils, on slopes and on level ground. In growth habit, the plant varies from a climbing vine or trailing shrub to a rather erect bush. By means of aerial rootlets, it attaches itself to convenient supports, such as rock walls, fences, stumps, and trees. Patches may occur along stream banks, in gullies, and in areas of tall grass. Large plants produce dense masses of foliage, illustrated in the inset portion of the photograph. Poison-ivy leaves have three leaflets and are thus distinguished easily from the five-leaflet leaves of the harmless Virginia creeper which occasionally is confused with poison-ivy. The shape of the poison-ivy leaflets is variable. A glance at the illustration will show that some leaflets have irregular notches or teeth in the margins, whereas other leaflets are without teeth or divisions of any sort. Small yellowish green flowers, appearing in early summer, are followed by scattered clusters of berries slightly smaller than elder berries but whitish or cream-colored at maturity. *The only shrubs occurring in the United States with white berries and leaves having three leaflets are the various species of poison-ivy and poison-oak.*

At certain stages of growth some forms of poison-ivy bear a rather close resemblance to other plants, and ability to recognize the plant at sight can hardly be acquired from pictures or brief descriptions. Recognition is much easier after one has been shown the growing plant. Persons unfamiliar with the weed usually can find some one to point out the location of any patches of poison-ivy which still persist on the course.

**Eradication of Poison-Ivy.** Poison-ivy is not an easy plant to destroy. If all of the leaves can be reached spraying the foliage with a saturated solution of common salt, prepared by adding about 3½ pounds of salt to a gallon of slightly soapy water, will kill the leaves

and fine stems but not the main stems and the roots. Additional sprayings will be required to kill the leaves and young shoots that



Poison-ivy (*Rhus radicans*)

soon spring up. The first spraying is most effective if done not later than the end of June. Usually within a month new leaves appear.

These should be sprayed as soon as they are fully grown. Under favorable conditions, the plants are killed by two sprayings. Sometimes three or more sprayings are required. The great advantage of this method is that contact with the plant can be avoided.

Crank-case oil, thinned with kerosene until it sprays easily and applied like the salt solution, is also effective in killing poison-ivy, and perhaps is more effective than salt for late-season defoliation. Oils should not be used where they are likely to come in contact with the bark of valuable trees.

The use of chemicals to kill poison-ivy growing in woods may or may not be practicable, depending upon whether one wants to kill the other undergrowth with which the poison-ivy is mingled. In many instances the killing of all small undergrowth is desirable, in which case two birds can be killed with one stone. In a heavy growth of poison-ivy, it is often impossible to reach all of the lower leaves with the first spray. In such places a second visit should be made about a week after the first treatment and the remaining leaves sprayed.

Poison-ivy plants growing as long vines on trees can be killed by severing the stems of the poison-ivy with a hatchet or an ax, care being used to chop completely through the vine which often is found fitting in a groove of the bark of the tree. After a month or six weeks, the new tops which always spring up from the lower portion of the plant may either be pulled up or killed with spray.

If willing workmen can be obtained, and if the expense is justified, the most satisfactory and effective way to destroy small isolated clumps of poison-ivy plants is to pull or grub them out, provision being made to go over the ground again at intervals of a few weeks until no more sprouts appear from root fragments. To do this work it may be possible to employ the occasional person who is practically immune to ivy poisoning. Workmen unfamiliar with the plant should be warned of the risk involved. Experience has shown that leggings, leather gloves, and heavy work shirts offer considerable protection. In the absence of leggings and gauntlets, it is a good plan to tie the trouser cuffs snugly around the tops of the shoes, and in similar manner to connect the shirt sleeves and the cuffs of short gloves. Workmen should be warned against touching the gloves to the face, or permitting twigs of poison-ivy to brush against the face. Also, in burning dried uprooted plants, care should be taken to keep away from the poisonous smoke.

**Treatment of Ivy Poisoning.** Up-to-date advice relative to the treatment of ivy poisoning can be obtained from the United States Public Health Service, Washington.

*Announcement of the personnel of the newly appointed Green Section Committees will be made in the March number of THE BULLETIN.*