

weeds themselves be choked by a more vigorous plant, which will prevent them getting light and air such as the free-growing grasses, millet, buckwheat, clovers, or even a thickly sown grain crop. This treatment will destroy the seedlings, which appear at the same time as the crop sown, and thus prevent them producing other seeds. When the land is ploughed again, those weed seeds turned up near enough to the surface to germinate, must be killed by the frequent use of the cultivator, harrow or weeder.

An excellent plan of smothering out a restricted patch of any troublesome weed, frequently practised in Manitoba is to build a straw stack over the spot; a manure pile is used in the same way in the east.

THE USE OF CHEMICALS.

The killing of weeds by the application of chemicals is not often a practical remedy, but salt, coal oil, sulphuric acid and carbolic acid have been used successfully on limited areas. Salt, however, has given excellent results when applied to land infested with the Orange Hawkweed or "Paint Brush" in the State of Vermont and in the Eastern Townships of the province of Quebec. Salt is also very useful for the destruction of many kinds of weeds on gravel walks. Mr. F. T. Shutt, Chemist to the Dominion Experimental Farms, recommends the following for destroying weeds upon gravel walks: 1 lb. white arsenic; 2 lbs. washing soda; 3 gallons of water. Boil and dilute with three times the volume of water. Apply while warm in fine weather. A thorough application at the beginning of the season will be sufficient to keep a path clean throughout the summer. A simpler and a very effective formula is as follows: 2 lbs. blue vitrol; 6 gallons of hot water, dissolve in a crock and apply as above. Mr. L. A. Dewey, Assistant in the United States Division of Botany, says, when speaking on the use of chemicals:—"A few drops of carbolic acid applied at the base of the main stem with an ordinary machine oil can is the best method that has, as yet, been devised for killing weeds with chemicals." But, on the whole, the use of chemicals as weed destroyers has not given much satisfaction, owing to their cost and the expense of applying them.

Names given to some of the different arrangements of the flowers in plants, which for the sake of brevity it is necessary to use in the following list, are as follows:—

A *Spike*, when the flower stalks are very short or wanting altogether, example Plantain, Wheat.

A *Raceme* differs from a spike in the flowers being borne upon foot-stalks of an equal and of a noticeable length, example Lily of the Valley.

A *Panicle* is a compound raceme or a raceme with branched foot-stalks; example, Oats.

A *Corymb* is a raceme in which the footstalks are gradually lengthened from the apex downwards, so that all the flowers are brought to the same level, or nearly so; example, Groundsel.

A *Cyme* is a panicle with the foot-stalks so developed or contracted as to form a flat-topped head, the central flowers generally blooming first; example, Elder, Dogwood.

A *Head* is when numerous flowers are arranged upon a disk or receptacle; example, Ox-eye Daisy.*

An *Umbel* is when all the flowers are supported upon foot-stalks of equal length; example, Geranium. If each of the foot-stalks of an umbel bears a secondary umbel as in the carrot, it is a *compound umbel*, and, indeed,

* In the following table of weeds, the heads of flowers of plants of the Sunflower Family are treated of as if they were single flowers.