

uninjured, and when the manure is spread on the land weeds spring up in abundance.

Many biennials and perennials which contain rich stores of food in their tap-roots and stems are capable of ripening their seed without contact with the soil if they be pulled in an immature condition. If such plants are not burned, but thrown on the manure heap, hundreds of their offspring are ultimately carried back to the land. "An ounce of prevention is worth a pound of cure." Litter of fodder, when thrown on the manure pile, will add to the number of weed seeds in the manure.

3. BY FARM IMPLEMENTS.—Weeds are frequently distributed by waggons, harrows, seeders, threshing machines or other agricultural implements, and carried from farm to farm or community to community. A threshing machine which has been used on a farm where through ignorance or neglect weeds abound contains numerous seeds in the chaff, foul seed, and other litter remaining in the machine. When the machine is moved to another farm many of these seeds are shaken out. Threshing machines should be thoroughly cleaned before being moved to another farm or community.

BY RAILROADS AND VESSELS.—Many of our worst weeds reached this country from Europe in the ballast of vessels. The ballast is thrown from the vessel at some seaport, the weed seeds germinate and produce flowers and seeds, the seeds are carried inland, and soon the weed infests the country. Ragwort, *Senecio Jacobæa*, which has over-run some sections of Nova Scotia, was introduced in that way. Weeds also follow the lines of railway, the seed being dropped from cars as the train moves along. Grain, fodder, and litter of various kinds, are scattered along the track, and at stations where grain and animals are unloaded, and cars cleaned, many weed seeds are planted. In this way seeds are carried from one country to another, and from one province to another.

Notwithstanding all efforts to prevent their introduction and distribution, weeds will certainly