

Grasses and Forage Plants.

Timothy Grass.

This widely-cultivated and highly-prized grass is known among botanists by the Latin name *Phleum Pratense*. Its common name is derived from a person named Timothy Hanson, who cultivated it largely, and was the means of its introduction into Maryland and the Carolinas. It is usually called *meadow cat's tail grass* in Britain, and sometimes, both there and in this country, it is styled *herd's grass*. The application of this latter name to it is the cause of some confusion in Pennsylvania and the States further south, where it is common to call red-top *herd's grass*.

The scientific description of this grass given by Flint is as follows.—“Spikes cylindrical or elongated, glumes hairy on the back, tipped with a bristle less than half their length; leaves long, flat, rough,

in size, to show the general habit of this grass; and Fig. 4 is a specimen of portions only, the base and head, but little smaller than the average natural dimensions. The seeds are easily separated from the husks when ripe, very small, somewhat globular, heavy, and of a light, silvery color. The small figures 1 and 2 represent the seed enclosed in the husk, the first of the natural size, and the second magnified. Fig. 3 shows a single flower, magnified, consisting of corolla, anthers, and stigmas, the seed vessel being enclosed in and concealed by the corolla.

Timothy requires a rich soil in order to yield heavily, and nowhere does it flourish more luxuriantly and produce more bountifully, than on the newly-cleared lands of the North American Continent. Grown in such soil, abounding in stores of the most nutritious plant-food, this grass attains a wonderful height, and makes a very fine appearance in the blossoming stage. If, however, allowed to become too ripe before cutting, a mistake into which new

unrivalled excellence. This grass will grow on a variety of soils, but thrives best on those which have both tenacity and moisture. It is not suited to sandy or light gravelly lands, for though by means of painstaking culture, it may be made to grow and produce fair crops, other grasses can be grown to better advantage on such lands. It takes readily, and yields largely on suitable soils, as much as four tons to the acre having been mown in some instances. When grown for seed, from ten to thirty bushels per acre, according to the strength of the land, are obtained.

We do not consider it advisable to pasture meadow land in the spring of the year, but in some cases it is unavoidable, and when it is so, timothy suffers less from this treatment than most other grasses, owing to the fact that its flowering stems are somewhat late in starting. It yields a heavy summer cutting, and is worthy of being more generally used for soiling than we find common.

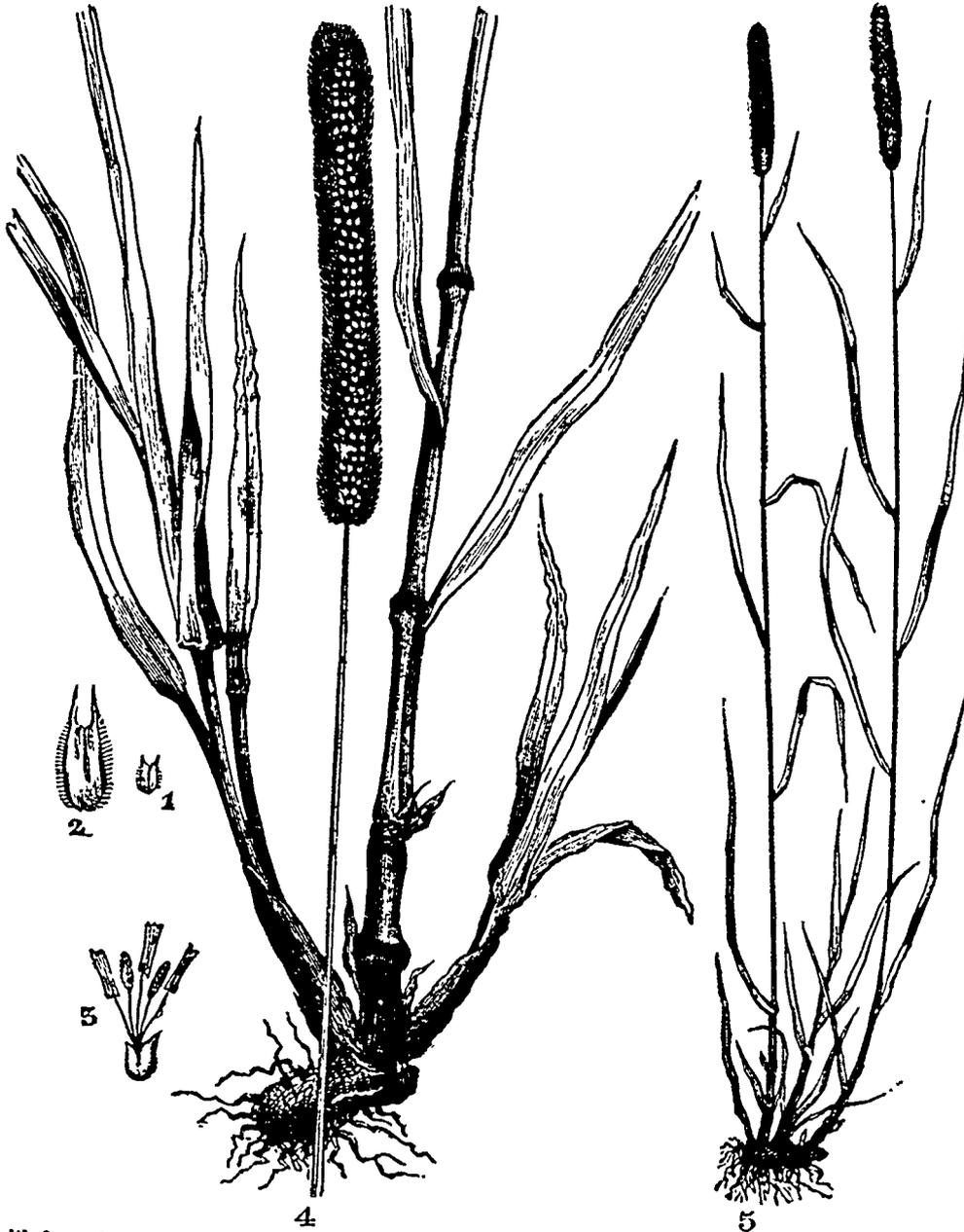
Timothy is not only sold as a lone seeding crop, but is often mixed with other grasses. In Britain, it forms one of many ingredients in a mixture for permanent pasturage. In that climate it is said to yield a very sweet and early herbage for sheep in spring. When mixed with other grasses for mowing, regard should be had to the time of their flowering, as it is desirable this should be simultaneous. For this reason, the best practical farmers disapprove of the common custom of sowing timothy and clover together. There is considerable difference in the time of blossoming of these two grasses, timothy being in variably later than clover. Hence to get the clover at its best, the timothy must be cut too early, and to get the timothy at its best, the clover must be left too long. Both palatableness and nutritiousness in the hay are more or less sacrificed by the usual practice of sowing timothy and clover together.

The seed of this grass averages about 44 pounds to the bushel, and 74,000 of its seeds are contained in one ounce. When sown alone, from ten to twelve pounds of seed per acre will suffice; in mixtures, of course a less quantity will do. Care must be taken not to bury the seeds of this grass too deeply in the soil. It has been ascertained by careful experiment, that the greatest number germinate when covered with not more than a quarter inch of soil; only about half as many come up when the covering is from three-quarters to one inch; and two inches of earth effectually buries the whole of them. In a successful seeding down, the young plants grow rapidly, and speedily acquire size and vigor.

Like most other vegetable productions, timothy has its insect enemies. The most formidable is one that attacks the plant just before the time of blossoming, and causes the stalk to die. The ravages of this insect are said to have increased of late years, and unfortunately, no effectual antidote against them has, as yet, been discovered.

The Cultivation of Grasses.

At the annual meeting of the Vale of Alford Turnip Growing Association, held last week, Mr. George Bruce, Keig, Aberdeenshire, who last month got the Highland Society's gold medal for an essay on the "Comparative Productiveness of Turnips," read the following interesting paper on pasture lands. He said—"Old times are changed, old manners gone," are words which might well be used in regard to the agriculture of our vale. Not many years ago farmers derived their income largely from the grain crops, but now it is principally, as our worthy M.P. remarked, by the rearing and feeding of cattle that they can make ends meet. As our pastures have therefore a good deal to do with the feeding of our stock, and have not hitherto got the attention they deserve—in other words, though they have degenerated in a great measure by the continued cultivation of the same plants—still the old system of selecting, and manner of sowing the seeds have not changed. I therefore, intend to make a few remarks on this subject, which, I trust, will in some cases make two



with long sheaths; root perennial, fibrous on moist soils, on dry ones often bulbous; grows best on damp peaty soils."

The appearance and general habits of this grass are familiar to most people. It is easily identified by its flower-head; so similar in form to the tail of a cat, and by its bulb-like swellings or knots at the joints and base of the stem. The accompanying illustration will give a good idea of these distinctive features of the plant. Fig. 5 is a stalk very much diminished

settlers are very apt to fall, its value for hay is greatly lessened, as the stalk of the plant becomes very strawy, and even reedy in coarseness and dryness. Seed of the very best quality may be thus obtained, the marketable value of which goes far to compensate for the loss of hay. When designed for winter fodder, it should invariably be cut while in full blossom, as it is then plentifully charged with nutritious juices, and sure, if well cured, to be greatly relished, especially by horses, for feeding which it makes a hay of