up in cock - small *grass cocks* the first afternoon, and then in larger ones- before nightfall.

Here, where labour is so costly, the same process cannot be gone through and the sooner hay, especially clover hay, can be got into large cocks the better, and if these are covered in with well made *caps*, the hay will suffer neither from wet nor from sun.

The London, Ont., *Farmer's Advocate* speaks of these caps as follows:

HAY CAPS AND CLOVER. - I have been experimenting this season for the first time with the use of hay caps in making hay and clover, and with most satisfactory results. They are made of pulp, light, easily put on, perfectly waterproof of a saucer shape, and large enough to cover a cock of fifty or a hundred pounds of hay By their use I have been able not only to save my hay in beautiful order in spite of frequent showers, but also in many cases to carry it from the cock even after a heavy rain without further *handling*, and I have also found that by cutting Saturdays, cocking and capping in the evening, that I have the usual number of loads to bring in on Monday, instead of as heretofore trying to get everything into the barn on Saturday, and either wasting time on Monday, or cutting more than I could properly attend to With grain I have not yet tried them, but in clover growing I believe their use is destined to serve a most important end, and they overcome the objection that many people make to clover growing, on the score of needing so much handling in curing it.

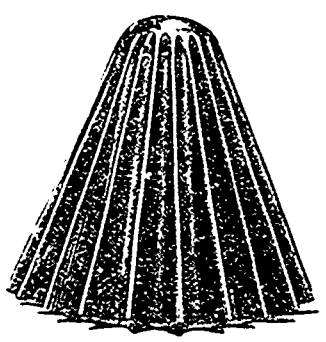
Prof. Henry, Wiscon in Ex Station, "found them very useful in covering not only hay but also plants newly set out

Mr. Long, New-York, was well pleased with the 800 hay-caps sent him.

Mr. Whitcomb, Massachusetts, likes the caps very much, if he had taken 500 of them the first of July, he would have saved, in quality of hay, $100.

We have been informed that many of these caps are ordered for the approaching summer, and we trust that those of our readers who use them will let us know how they find them answer.

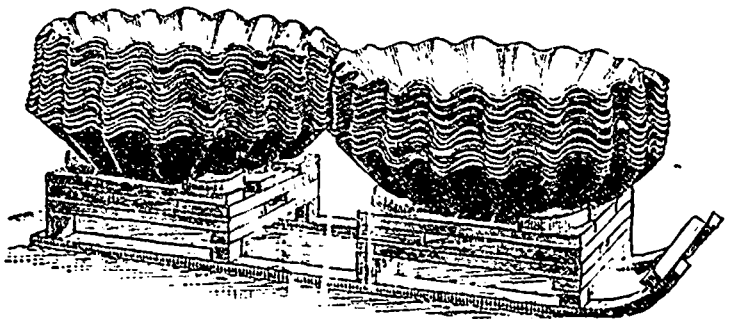
A useful Experiment.



The Symmes haycap Company send me a portrait of the Symmes' Patent Vegetable Cover. It is said to be thoroughly waterproof, tough and durable and to last a lifetime, if taken care of. It is 11 inches high and 9 inches diam. at bottom.

It appears valuable for covering transplanted plants, such as tomatoes, cabbages, &c., allowing them to be transplanted much earlier than in the ordinary way Corn, beans, melons, cucumbers, &., can be planted much earlier by having these protectors from frost

They are also useful for covering



tran-planted flower plants.

The price is $10 per 100, f. o. b. Sawyerville, P. Q., and we should like our friends to give them a full trial at once DIR.

Leguminous Cropping

We are destined to hear a great deal upon this subject. It is true that the *leguminosæ* possess the power of appropriating nitrogen from the air, and of adding to the stock of organic nitrogen in the land. This is the great discovery of the period in agricultural chemistry, and it will no doubt be used as a means of improving land. Leguminous crops will be more largely grown in preparation for corn, and rotations may easily be framed with this end in view. Clover may even be sown among beans instead of among barley, with good results. Peas, vetches, and lupins will also be more largely cultivated. Such a rotation as the following is a type upon wich courses of cropping may in the future be modelled :—

1st year, mangel, cabbage, or swedes.
2nd " beans (leguminous crop).
3rd " clover (leguminous crop)
4th " wheat.
5th " vetches (leguminous crop.[1])
6th " wheat.

or the rotation might be modified into —First year, beans and clover cut green for silage; second year, wheat; third year, vetches; *fourth*, wheat, *fifth* year, barley or oats; sixth year, potatoes, well dunged and manured.

There are certain considerations with reference to these modern suggestions which should not be lost sight of. First, the fact of the discoveries of Hellriegel and Wilforth *only reveal a fact which has always been in operation*. The excellent effect of clover as a preparation for wheat was fully appreciated long before it was understood. Rape is also a capital preparation for wheat, although it is not known to absorb nitrogen from the air. Vetches are an excellent crop, but have the disadvantage *of being too late to be used* very successfully as a catch crop. The ordinary turnip crop is as good a preparation for barley as clover is for wheat, and a good crop of early turnips fed off with sheep is probably as good a preparation for wheat as clover itself. Rotations should always be as varied in their constituent parts as possible, and it would not serve our purpose to limit them by leaving out the *cruciferæ*. At present, rotations are almost always composed of these three natural orders —*gramineæ*, *leguminosæ*, and *cruciferæ*, [2] and it would not answer to exclude any one of them from a full share in cropping

It may also be fairly asked why *leguminosæ* have not already absorbed more attention on the part of good farmers They are appreciated very highly, but *as practice has usually led theory*, we believe that the cultivation of these crops would have been still further extended through the dictates of experience without scientific enlightenment. That they have been admitted to a great extent into all courses of *cropping is evident, and it is possible* that they may be still more widely grown There are, however, many and varied considerations, which will probably end in holding an even balance between them and other crops. What could be a better example of a leguminous rotation than that known as wheat, beans, wheat, beans, &c.? Here we have the full effect exhibited of leguminous preparation for wheat. The system is an old one, and is still followed.(1) It, however, has not extended, but is restricted to certain soils, and does not intrude upon those on which a greater variety of crops can be employed.

We doubt, for the reasons given, that this new "gospel" will, after all, produce a radical change in our established systems of cropping (2)

JOHN WRIGHTSON.

(1) In many soils vetches make the land too "shattery" for wheat unless a sheep-fed crop of roots or rape intervene between the vetches and the wheat. Ed

(2) I.e., gram and grass, pod-bearers, and the turnip family. Ed

The Flock.

Early lambs—On the 27th. of February, we saw two very fine fat lambs hanging up in the shop of the Messrs. Brown, Ste. Catherine Street, Montreal. Both were jet-black, and we have often remarked that most of the early lambs that come to Montreal are of that colour: why this should be so is not clear. At all events, as black sheep are rarely to be found among the flocks of English-speaking farmers in this province, we must conclude that the earliest lambs are sent to market by the French-Canadians, and they deserve very great credit for their enterprise. The lambs in question were ripe-fat, the kidneys well covered, and the briskets full of meat: but they handled soft, and a few pints of pease would have made the flesh firmer: a fortnight more ago would have improved them vastly, as a quarter would have been but a small dish.

Sheep Worrying.

A man has a right to shoot a dog which is actually attacking his sheep, but he has no right to shoot it because it has attacked them, or because he thinks it likely that it may do so The test is, that if the shooting of the dog will save the sheep from actual harm, then he is entitled to destroy the dog when it is actually attacking the sheep; but, if it has attacked them and is running away, the shooting of the dog would be illegal, for he would not then be protecting them from it Of course, in any case, he would be entitled to sue the owner of the dog for damages, and a special Act of Parliament says that it is not necessary as in other cases, that he should prove the dog to be vicious or dangerous to the knowledge of the owner.—FARM AND HOME.

(1) Particularly in the heavy lands of Essex, Eng., where the land is ploughed into 4 feet ridges " Ed.

(2) The italics are ours Ed.

In the Cholderton flock, near Grateley, *the property of Mr. H. C* Stephens, M. P., the lambing season commenced on January 7th. and up to January 23rd the fall of lambs had been seventy-four, strong and healthy, from fifty-one *Hampshire*-down ewes which had come in. Mr. Ernest D. Brient steward to the estate, informs us that up to the date given there had been only one ewe lost, and that two ewes had dead lambs before the time was up for lambing. His system of feeding is as follows: - Before lambing the ewes have swedes and sainfoin hay; afterwards they have a mixture of one part hay to six parts wheat straw chaffed, with *1 bushel of pulped roots to 16 bushels* of the chaff; to this is added ½ lb. of malt coombs and ½ lb. of pea-meal to each ewe, and the whole thoroughly mixed and allowed to ferment for thirty-six hours. This makes a very appetising food, and is a great saving of hay, which is now very scarce. Ewes with twin lambs have 1 lb. of decorticated cake in addition to the ordinary mixture. The *Southdown* flock at Cholderton has gone on well up to date, and will commence to lamb down January 30th.

Dorset horned sheep—The following *is a description of the points of a good* Dorset:

General appearance, head well up, eyes bright and alert, and standing square on legs, 20; broad, full chest, brisket well forward, 10, broad, straight back, with well sprung ribs, 15; heavy square quarters, set on short, straight legs, well apart, 10; legs white, with small light-colored hoof, 5; head small, face white, nostrils, well expanded, nose and lips pink in color, 5; neck short and round, set well on shoulders, 5, horn, neat, curving forward and light in colour, 10, good foretop and well covered on belly and legs, 10, *wool of medium quality and good* weight, presenting an even, smooth, white surface, 10.

The Bordeaux mixture.—Caution in the use of this mixture for curing the potato disease is recommended by more than one extensive grower in England. It has been found to renew the vigour of the plant so much that the tops, instead of dying off at the proper season keep on growing, and the tubers, instead of remaining white, turn yellow, lose their mealiness, and become waxy and soap-like. This is worth looking into, as, except on certain soils, our *potatoes are not even now too fine in* quality.

Feeding Lambs for Market.

EDS. COUNTRY GENTLEMAN.—I have tried raising early lambs for market for a few years and have no trouble in getting them to weigh from 50 lb. to 60 lb. when from 8 to 10 weeks old, but the butchers complain of their not being fat enough to dress well—there is too much shrinkage - and I should like a good ration for both sheep and lambs. The sheep are grade Shropshires and Southdowns, have used an *imported Shropshire ram*. This year expect lambs about the 1st of February.

I have fine upland hay cut in June and rowen; stone, or rutabaga turnips, and mangolds, for roots; Chicago coarse