

LARCHES.—European larch (*larix Europea*); native larch, tamarac (*larix Americana*).
HARDWOOD TREES.—Hickory (*carya*); oak (*quercus*); walnut (*juglans*); beech (*fagus*).
MOUNTAIN ASH.—*Sorbus*.

The nut-bearing trees above enumerated have been exhaustively written up in recent issues of the *ADVOCATE*, all their qualities having been fully described; we have also given numerous illustrations and descriptions of many of the other classes mentioned in the list, and we have given the orders in which they should be arranged, of which we shall say more at a seasonable time.

Very few experiments have been reported with reference to the rapidity of growth of the different classes of trees, which is a very practical question when quick returns on the investment are desired. The following table, giving the age, height and diameter of the largest trees of the classes named, is taken from observations made on the Mich. Agricultural Grounds, compiled by Mr. W. J. Beal, professor of botany and forestry, the diameters having been taken one foot from the ground:

Table Giving the Age, Height and Diameter of Different Trees.

Name.	Age, Years.	Height, Feet.	Diameter, Inches.
Swamp White Oak.....	11	12	2
Sugar Maple.....	10	18	2
White Pine.....	9	15	2 1/4
Butternut.....	10	18	3
Black Walnut.....	9	16	3 1/4
White Ash.....	10	18	4
Black Cherry.....	7	17	3
Basswood.....	10	25	4 1/4
Red Elm.....	14	30	6 1/2
Poplar Birch.....	13	30	6
Balsam Poplar.....	12	30	6
European Larch.....	13	28	7
Lo. ust.....	7	25	4 1/4
Chestnut.....	10	22	7
Catalpa speciosa.....	13	28	10
Silver Maple.....	12	35	10 1/4

The vegetarians in England are making rapid progress. The question of vegetable diet was discussed in a recent meeting of the Vegetarian Society, at which many able speakers took part. Dr. Nichols said he had become for many years identified with the question of diet. It was sixteen years ago since he wrote his first little pamphlet on the question, a little tract, entitled "How to Live on Sixpence a Day." In the year 1836 the Professor of Anatomy, under whom he (the speaker) was then studying, invited Professor Silvester Graham, of America, to give a series of lectures on diet. These lectures he attended, and became a vegetarian then and there. From that time he was strong and well, so well that from that day to the present he had had just one week of sickness that had disabled him from his work; one week and no more. So he had a good right to stand by the vegetarian theory. He was glad that the Vegetarian Society had taken up the question of fruit. Those who believed in Moses believed that in the beginning all lived without animal food; while those who believed in Darwin all believed that our early ancestors all lived upon fruit, every man of them. Fruit generally formed a very valuable article of diet. The grape was a perfect food—perfect chemically and naturally—so was the fig. In the heart of Africa numbers of people lived entirely upon dates. The secretary of the branch of their Society at Liverpool a few years ago had a six-weeks' holiday, and went on a walking tour to the Land's End and back, and eat nothing but apples the whole time—a sufficient and abundant proof that the apple amply sustained human life and strength. Dr. Tanner, after his forty days' fast, ate first a peach. That was the food that naturally and instinctively he chose after his severe ordeal. Fruit was the most beautiful and valuable food in the world. It was the first original and natural food of man, and he believed that it would also be the last.

Veterinary.

A Disease Among Horses the Result of Injudicious Feeding.

The following bulletin has been issued from the Veterinary Department of the Michigan Agricultural College:

In the spring of the year it is generally a matter of much consideration amongst farmers to have their horses in the best condition possible to do the work necessary at this season, and after a severe winter, which we often have in northern latitudes, many matters in the shape of extra farm work accumulate, which would have, weather permitting, been done before; and there is the spring plowing to be done, which, with a good pair of horses up to their work and in high spirits, becomes a much lighter task for the lover of horse flesh who tills the soil. We can scarcely wonder, then, that such a man will feed his horses well, and upon the most nutritious food while they are resting, recruiting as it were, in order that they may be the better able to perform their various duties when the time comes, and thus, through the error of liberality, quite a number of animals are sacrificed, "Killed by Kindness," every year. Again we find at this season of the year that horses kept for pleasure, or very light work, are often compelled to remain in the stable for several days, owing perhaps to inclement weather, and as such horses are generally pretty liberally fed and in high condition, they are frequently affected with the complaint which I am about to describe; but before doing so perhaps it may be better to settle upon a name for the disorder, and although this may appear to some an easy matter, or maybe of little importance, yet this very point has given rise to considerable controversy as to the cause, seat and other matter in connection with the disease—for instance, it has been called "congestion of the loins," but I have seen cases where the muscles of the shoulders were alone affected. In the State of Michigan I have from time to time seen the disease referred to in agricultural papers as "Red water," but this is misleading from the fact that in some of the worst cases the water (urine) is not red; besides it differs from a disease of that name in the bovine tribe in several respects, among others the cause. Without, however, commenting at any length upon the name, let me say that the one by which it is generally recognized in this country by veterinarians is Azoturia, a name given to it from the fact that the urine has been found to contain an undue proportion of nitrogen during an attack. So, adopting this cognomen, let us for a moment turn to the cause of the complaint, which in this case, as in all others, is the first thing to discover before we can hope to combat in an intelligent manner the invasion of the disorder; and in reference to it I may say, without going further, that experience has taught us beyond all reasonable doubt, that the disease is caused by feeding horses too liberally upon nutritious food and not giving them any exercise. I may say in this connection that every case of this malady I have met with presented just about the same history, and may further say that those who have described the disease, did so in a manner which corroborates what I myself have witnessed, so I think if I just briefly outline in familiar terms the history which I invariably get, it may make an impression that will do good in the future, to wit: The horse was in good condition and well fed, but owing to certain circumstances had not been out of his stall for a day or two. When brought out he was in the best of spirits, never, perhaps, feeling better in his life; but in a variable time, from a few minutes to, say, a quarter of an hour after being on the road, it would begin to show symptoms of distress, and the change from what would appear to be robust health to extreme prostration is very alarming, indeed almost in-

credible, running its course and destroying life in a day or so; happily, though, this is a malady which, if dealt with judiciously, is often amenable to treatment.

The disease may occur at any season of the year, but in my experience is more prevalent in the early spring than at other times, owing, of course, to the fact that animals are more subjected to the exciting cause at this than at other times.

To be able to recognize the disorder in the early stages is a matter of importance, for the sooner appropriate remedies are administered the better.

THE SYMPTOMS

are usually very well marked, although we will once in awhile meet with cases where it is not easy to recognize the disease at first sight; as a rule, though, the horse, after being driven and allowed to stand, will tremble, sometimes violently. The eyes will present a very anxious look; perspiration will run down the face; sometimes the whole body is bedewed with sweat. The animal, at this stage, generally paws with its fore feet and soon lies down, or it will crouch behind and appear as if injured across the back, having much difficulty in manipulating its hind legs when required to walk, when it eventually lies down, and in many instances is unable to rise, although it may be able to get up on its fore legs and sit, as it were, like a dog; but this attitude is not often attained more than a few moments, when the poor creature will fall upon its broad side. At this stage the urine, if voided or drawn away, is usually of a brownish red color. I have seen it described as being of the appearance of coffee, and, indeed, the comparison is striking. The breathing becomes hurried, the nostrils often being dilated and red within. When the hind quarters are apparently most affected they will have a hard, board-like feeling when pressed upon with the hand; the same condition of the muscles will appear on the shoulders when the forequarters are affected. The pulse becomes elevated.

TREATMENT.

It has become a very threadbare expression to say that an "Ounce of prevention is worth a pound of cure," but I know of no disease where this adage can be more appropriately applied than the one under consideration; so it goes without saying, that horses which are well fed should be exercised daily, or else they are liable at any time, after a day or more's rest, to come down with this disease. But when they do, the course of treatment which I have found from time to time to be of much benefit is, in the first place to give an active purgative of about a quart bottle of raw linseed oil; as soon as this is poured over, the affected part should be covered with cloths wrung out of warm water, and the whole covered with oil-cloth or other close fabric to keep the heat in. An enema may be given every hour or two until the bowels begin to act. It should be composed of soap and warm water. After about the first twelve hours the hot cloths may be left off, but the body should be kept comfortable and clothed according to the season. In some instances great relief is afforded in an hour or two after the hot cloths have been applied, in which cases they may be discontinued. In those cases in which the animals become very uneasy and knock themselves about considerably I have found great benefit from the use of chloral hydrate in doses of about four drachms every two hours or oftener, until several doses have been given or the animal is influenced by the medicine. The urine should be drawn several times a day.

After a day or two it is a good plan to get the horse upon its feet, and a few steps of exercise will often stimulate the blood-vessels in the legs, and thus do much good. It is also a good plan to rub the legs thoroughly when it is possible to do so, say three times a day.

I think in cases of this kind the services of a veterinary surgeon should be secured as soon as they can be, for nearly every case differs somewhat in the manifestation of its symptoms, and requires somewhat different treatment, so that the above can only be looked upon as a general outline, but at the same time such a course will have a good effect in ordinary cases at least—that has been my experience.