

and of a beautiful deep blue. This species belongs to the group in which the leaves spring from the crown of the plant and not from an aerial stem as they do in many species. The group in which the leaves appear to spring from the root (they really come from a very short, subterranean stem, for no leaf ever came from a root yet) are called the Stemless Violets, while the group in which the leaves are borne on a stem above the ground are called the Leafy-stemmed Violets.

Another extremely beautiful species is the Long-spurred Violet. The flowers are large, the petals are Lilac-colored with a violet spot near the centre, and the lower and lateral ones are striped with purple. It belongs to the leafy-stemmed group, and as the name implies its distinguishing characteristic is the very long spur.

There are several species of stemless white Violets to be found in our woods and swamps. Their flowers are small, but when examined closely are very pretty on account of the chocolate veining of the white petals. We have but one leafy-stemmed white Violet, the Canada Violet and it is a large, upstanding species. Both our yellow Violets are leafy-stemmed, and the main difference between them is that one species is more downy than the other.

That "Voice of the evening" the Whip-poor-will, is back again in its haunts. It is one of the birds which is often heard and seldom seen. All who dwell where there are any extensive areas of bush are familiar with its oft-repeated call, but few have any idea what the bird looks like. It may often be seen in the woods by those whose eyes are trained to observe, as it sits length-wise of a limb or fallen tree-trunk, but by the uninitiated it is frequently passed by as a knot or some protuberance of the bark, so well do its colors blend with the bark of the trees. In the male, the general color of the upper parts is dark brownish-gray, streaked and minutely spotted with brownish-black. The wings are dark brown spotted with reddish-brown. The four middle tail feathers are colored like the back, while the three lateral ones are white in the terminal half. The throat and breast are similar in color to the back, with a transverse band of white on the fore-neck. The rest of the under parts are paler than the back and mottled. The female is similar in coloration to the male, but the lateral tail-feathers are reddish-white towards the tip only, and the band across the foreneck is pale yellowish-brown.

The wings are long and pointed and the feet are small. The bill is a mere horny tip to an immense mouth. This large mouth, which can be opened until the whole head seems to be opened, is of great service in scooping in moths and other insects which fly at dusk, while the bird is on the wing. The flight of the Whip-poor-will is very soft and silent, and it flits among the trees like a huge brownish moth.

The eggs are two in number and are deposited in a hollow or rotten log, or on a dry bank among the dead leaves. The eggs are elliptical white or cream-color, handsomely marked with yellowish-brown and lavender. When uttered close at hand the call is heard to be preceded by a "chuck". This species flits silently away to the south early in September.

THE HORSE.

Joint-ill---Navel-ill or Septic Arthritis.

Many theories have been advanced re the cause and nature of navel-ill in foals. Some claim that it is caused by what is generally called "leaking navel," technically known as "pervious urachus" in which more or less of the urine escapes through the navel cord. Those who have had experience have observed that this is not a fact. In some cases the two troubles co-exist, but in many cases either condition is noticed without being accompanied by the other, hence there is not necessarily a connection. Pervious urachus, when not complicated can usually be successfully treated, while "joint-ill", unless skillfully treated in the very early stages, usually proves fatal, and if in an advanced stage very seldom permits of a perfect recovery. Some claim that "joint-ill" is a disease of weakly foals; others that it is a disease of foals that get too much milk; others that it is caused by some undetermined alteration in the dam's milk; some that it is due to cold and exposure on damp ground; some that it is due to the nature of the dam's food; some that it is due to the failure of the foal to get the first milk of the dam, called "colostrum"; some that it is congenital, being contracted in an undetermined manner during foetal life. In fact each has his own opinions on the subject, but none can advance satisfactory evidence to establish their correctness. All these theories have been discarded in the light of modern veterinary science.

That the disease is due to a germ that gains entrance to the blood, has been proven beyond a doubt. A bacteriologist can isolate the specific

germ in the exudate, caused by the disease in all cases. The germ gains entrance to the system through a raw surface opening, generally, if not always the navel opening, enters the circulation, has an affinity for the joints, lodges there, multiplies very rapidly and causes the disease, hence it is often called "navel-ill". While scientists now generally admit that the disease is caused by a germ some claim that it gains entrance during foetal life, hence is congenital. This view is not supported by evidence, and is held by few.

The germ that causes the disease exists in the soil, in dust, on stable floors, and doubtless in some cases on the hair of pregnant mares that

joint may be affected. The trouble is often thought to be from injury by the dam treading upon the foal or other causes. The symptoms increase in intensity sometimes quickly, at others more slowly. The swellings increase in size and soreness; the patient becomes weaker, less able to move and lies most of the time. If helped to its feet it is lame and sore, but in some cases will nurse fairly well, but soon lies down again. As the symptoms increase in intensity the general debility also increases, and the desire for nourishment diminishes. The joint or joints involved become puffy, and if they are lanced or burst a muddy-colored liquid escapes. In many

cases the articular cartilages of the joints become destroyed, when manipulation will reveal a grating sound caused by the ends of the bones rubbing against each other. When this stage has been reached it is a humane act to destroy the patient. The patient will live a variable length of time, depending largely upon the care and attention it receives.

Preventive Treatment is the most important, and if we admit the theory advanced it can plainly be seen that this consists in preventing the entrance of the germ into the system. This can be done (where the germ exists) only by cleanliness and antiseptic measures. All dust, cobwebs, etc., should be swept out of the stable and the stall should be regularly and thoroughly cleaned, but it is good practice to scatter slaked lime on the floor daily before providing fresh bedding. It is good practice to give the stall a thorough coat of hot lime wash with 5 per cent. crude carbolic acid, or if whitewash be objectionable give it a thorough washing with hot water with 5 per cent. of the acid. It is also good practice to wash the external genital organs, tail and hind quarters of the mare occasionally with an antiseptic, as a 5 per cent. solution of creolin or other coal-tar products. When a mare is to foal on grass, of course, these precautions cannot be taken, but there is little danger (probably none) of the germ existing on grass, but may exist in sand or clay void of grass. The most essential preventive measure that can be observed in all cases is local attention to the navel as soon as possible after birth, and several times daily afterwards until it dries up and heals. Cases of pervious urachus favor the appearance of the disease, as it prevents the healing and drying up of the navel opening. The breeder should have on hand a bottle of some strong antiseptic and germicide when his mare is about to foal. This may be a 10 per cent. solution of carbolic acid, formalin, creolin, zincoleum or other coal-tar product, or a solution of corrosive sublimate. Some use tincture of iodine full strength. The writer prefers a solution of corrosive sublimate 30 to 40 grains to a pint of water. This is a



"Please sir, help along a poor railway wot has lost all it had."

are stabled or grazed in quarters where it exists. This last fact accounts for the occasional very early symptoms of the disease sometimes noticed. The germ gaining entrance to the foal during birth, the trouble is much more frequently seen in foals that are born in the stable than in those that are born in the pasture field. In some seasons the disease is much more prevalent than in others, and more frequently seen in some localities than in others. Owing to these facts we must acknowledge that certain climatic conditions and certain geographical conditions favor the presence of the germ, but just what the conditions are has not been determined.

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Rosie Pride.

Two-year-old Clydesdale mare, winner at leading exhibitions last fall, imported by Graham Bros., and now owned in the United States.

Symptoms.—The symptoms are evidently soon manifested after the germ enters the circulation. From a few hours to a few days, and in rare cases, a few weeks after birth, the foal is noticed somewhat dull, lies a great deal, manifests stiffness or lameness on one or more limbs. An examination will reveal a swelling, heat and tenderness of one or more joints, often, but not always, the hocks or knees, but may be the stifles, hips, and shoulders, fetlocks or pasterns. In fact any

very strong solution, but not sufficiently strong to exert a caustic or corrosive action, and it is an excellent germicide, and practically non-irritant for external application. Whatever is used it should be freely applied as soon as possible after birth, and four or five times daily afterwards until the navel has become thoroughly dry and healed, which is usually the second or third day. When these precautions are properly observed there will seldom