

Injuries from Barb Wire

How to Treat such Wounds when it is not possible to Secure a Veterinary

THE most common type of injury to our farm stock, no doubt, is that inflicted by the barbed wire fence. When one carefully looks over a large number of horses, it soon becomes evident that the great majority of the animals bear scars showing that most of them paid tribute to our great horse maiming machine, the barbed wire fence.

It is not on this occasion that the writer will deal with the barbed wire fence nor will he even put it on trial, although there should be but little difficulty in securing an indictment against it. For this time we will confine ourselves to its most conspicuous results, namely the wounds which it inflicts on our animals.

Those wounds by their very common occurrence are often the subject of amateur home treatment and while the services of a trained veterinarian should always be preferred, it may not be amiss to discuss the subject, as long as not every farmer can command skillful professional service.

The cuts made by barbed wire are usually of an incised nature. They vary from smoothly, clean cut wounds to unsightly lacerations, from a mere scratch to long gaping wounds which can be measured by the foot. The wounds may be confined to the skin or may involve such structures as muscles, tendons, blood vessels or even the more vital organs of the body.

Whatever the size or extent of the wound may be, remember that it will always pay to give them intelligent attention. A small scratch, just cutting through the skin is just as apt to give rise to grave mischief as one many inches in length and depth and quite frequently more so.

After an animal has received the wound, about the first thing to do is to remove it to a place where attention can be best given to it. In most of the wounds we meet, this can be readily accomplished by leading the animal to its destination, but in cases in which muscles or tendons are severed or which sustained great loss of blood some judgment must be exercised. In the former it may be better to apply some preliminary dressing, while in the latter it is best to have the hemorrhage under control to give the animal some time to recuperate before moving it. The advisability to make use of a sleigh-stone-boat or some such contrivance should also be considered.

When the bleeding is severe, this should come in for our first attention. To the layman, nothing may be more misleading than the extent of a hemorrhage. A superficial cut through the skin may give rise to an escape of blood seemingly of an alarming character and yet in a comparative short space of time the flow may stop on its own account. This is usually the case when one of the larger vessels are damaged, so that urgent measures are not always required.

When vessels of some size have been cut, prompt interference may become imperative. In such cases the blood spurts from the wound in a considerable quantity and when an artery is severed the blood may be thrown for some feet in a steady jet.

The most logical and at the same time most surgical manner to control a hemorrhage is by tying a cord around the bleeding end of the vessel. In some cases this is the only way to bring the bleeding under control. As this operation is not always easy to do, it is best to leave it to a veterinarian. However, one cannot leave an animal bleeding while waiting for the surgeon, while on the other hand, it is not always possible to so secure the severed vessels.

In both cases we must have recourse to some other method and perhaps we will obtain the best results from compression of the bleeding vessel or the wound itself.

When the bleeding is from a wound of one of the limbs, compression may be accomplished by placing a cord (in emergencies a handkerchief or a

shirt-sleeve will do) between the wound and the body and tightening the same by twisting it with a short stick. When the bleeding ceases the wound can be cleaned and the vessel tied off or a permanent compress adjusted over the wound by a bandage. This cord and stick method can only serve a temporary purpose and must as soon as possible be replaced by a more permanent control.

When the bleeding is from a part where the cord and stick cannot be applied, compression may be secured by packing the wound with such a material as wound gauze, cheese cloth or absorbent cotton and by stitching the skin tightly over it. When a large vessel is severed it is not always advisable to depend upon such a compression but the tying should be resorted to. In emergencies the vessel may be compressed by inserting the hand, which can be kept in position until assistance can be obtained.

When in the hemorrhage of medium severity, we depend upon a compressing bandage, the same can be left in place for 24 to 48 hours, especially if we use clean material for the purpose. After that period the dressing should be removed so that the wound can be properly cleaned.

Among other methods used in the control of hemorrhages we may mention the one of searing the bleeding tissues and the use of very hot water. Certain chemicals are also used but they are far from reliable and any hemorrhage which can be checked by means of the use of chemicals would also stop on its account. The application to bleeding wounds of cobwebs, ashes, flour or such substances is to be highly condemned.

As soon as possible after the wound was made, attention must be paid to cleanliness. In some cases, we must stop the flow of blood first, but usually it can be done even if some blood is flowing.

Begin by clipping away any hair which may be hanging into the wound, in fact it is very desirable to have the entire region of the wound clipped quite short as this would greatly enhance cleanliness.

Foreign matter, such as dirt, hair, straw, etc., must be carefully washed out of the wound and for the presence of such material the wound may be carefully explored by means of a clean finger.

It is not necessary to explore a wound by means of a probe. Usually a probe, however useful otherwise, is a dangerous little instrument by which infection is introduced into tissues, which otherwise would have escaped it. A probe in the hands of a careless surgeon is as dangerous as a loaded pistol in the hands of a monkey.

For the cleansing of the wound some antiseptic solution is to be preferred, although clean water, which shortly before was boiled, will do quite well; in fact may be better than some of the loud smelling, severely named concoctions with which the manufacturing chemists are flooding the market.

Of the antiseptic, we mention one per cent. solution of cresolin or carbolic acid or a solution of sublimate in a proportion of one part to three thousands of water. In making the mixtures, soft water is to be preferred, and the warmer the solution is applied the better will be its antiseptic properties. Most antiseptic solutions are more or less poisonous and should be kept away from children.

In applying the solutions, it is best to use a fountain syringe or a similar contrivance and the solution should be applied in liberal quantities. The use of little squirt syringes cannot be depended upon in good thorough work.

According to the nature of the wound the cleansing should be undertaken once or twice a day; ordinarily once a day is quite sufficient.

In a barbed wire cut, the stitching of the wound is not often necessary. It often does a great deal of harm

by doing away with proper drainage. Stitching is indicated in widely gaping wounds and then it is only a temporary aid. No matter how well we care for sown accidental wounds the most of them will produce pus and stitches will usually cut through in the case of suppurating wound. However, in the widely gaping wound they will usually hold long enough for the tissues around the wound to become somewhat hard and self supporting. When that condition has been reached the stitches can be safely taken out.

Stitching of wounds is best left to some veterinarian, who has the equipment and skill to do it properly.

Contrary to popular opinion, barbed wire wounds will usually heal better when left uncovered than under a bandage. This is also due to the retention of the wound discharges.

In wound treatment of all kinds this is an important matter as without drainage, wounds heal poorly and may give rise to grave infections spreading to other parts of the body. For this reason, we are often compelled to make extra openings into wounds which are not favorably situated for the proper discharge of the pus which is apt to form.

While the above outline of management especially fits to fresh wounds we are often confronted with old or neglected ones.

In those the question of hemorrhage or stitching is of no importance but on the other hand we may have to deal with the results of neglect. Those results usually consist of the accumulation of filth and dried wound discharge forming a thick scab covering the wound or matted into the hair of its vicinity. Not frequently the wound surface presents a protruding mass of unhealthy granulations. Such unhealthy granulations are often spoken of as "proud flesh." They have a tendency to bleed very readily and to break down under the influence of a constant infection.

In this type of wounds drainage of the discharges is frequently defective and in consequence the pus has burrowed its way under the skin and between the muscles and tendons.

In dealing with wounds of this type, we must begin by applying a thorough cleaning. Carefully soften the crust of dried matter and dirt by means of strong, warm soap suds, remove them and cleanse the surfaces with one of the antiseptic solutions mentioned.

If unhealthy, foul granulations be present remove them at once and check the resulting usually slight hemorrhage by means of a little compression. When the surfaces are dry paint them over with a five per cent. solution of the chloride of zinc in water which destroys unhealthy tissue and stimulates the formation of normal granulations.

When the pus has burrowed, it should be given an outlet at the lowest point, an operation frequently requiring surgical knowledge and hence best left to a competent surgeon.

After the wound had once been "renewed," as it were, it should come in for daily attention and washing.

Usually a clean wound will not attract flies, but in case the animal is annoyed by those pests nevertheless, the wound should be dusted over by a powder composed of four parts of boracic acid and one part of iodoform. This powder is best applied by placing it in an ordinary tin pepper box and shaking it over the wound, holding it upside-down over the wound.

While animals are being treated for barbed wire wounds, they should be kept quietly in the stable, whenever the wound interferes with free motions or when the movements are extended to the wound. In other cases it is best to permit the animal some exercise, in fact it is often advisable to continue the animal at its work, provided the wound is not chafed or rubbed by the harness.

One more thing must be remembered and that is, that a filthy stable is no place for an animal with an open wound.

It is bad enough to maintain a dirty stable for a sound horse, but in the case of injured or sick animals unsanitary stables are doubly dangerous.

The Gasoline Engine

Four years ago we bought a two and one-half horse-power gasoline engine to pump water with. The first summer it was used for nothing else and stood outside; but the following fall a suitable house was built for it and a line shaft put in. The pump is outside, about ten feet from the house, power being transmitted by means of a shaft passing through a hole in the wall. Water has been pumped by this means practically every day since the engine was installed, and stock does not want for it whether the wind blows or not. Water is piped to reservoir or directly to watering trough as desired.

The cream separator was attached soon after the line-shaft was put in. This stands in an extension built expressly for it and is run with a narrow belt from line-shaft to a pulley attached to the separator. The stand was removed and separator set down on the floor. This enables either man or boy to tend it, only one being required. The separator is run this way winter and summer. Motion is much steadier than by hand, the machine doing better work with less wear.

Next a wood saw was attached. This sets back of the shed and is run with a wide-belt through a little door in the wall. One man and boy now cut all the wood, the boy helping night and morning to saw up what the man hauls in during the day. A big pile is put up every winter at odd times without extra expense.

A small feed mill was next. This has a capacity of about twelve bushels an hour, and cost twenty dollars. It sets near the engine and is run with a belt directly attached. For three years they have fed all the ground feed they liked and paid no toll. Corn meal is also ground for house use and grains cracked for chick feed.

Next was a bee-hive machine. This sets to one side clear out of the way when not in use and is run with a belt from the shaft. By means of it we cut out our own hives—bodies, supers, frames—putting up just as good an article as we could buy at less than half cost. Man and boy can cut out forty complete hives in a day. Cost of machine aside from labor to build was about seven dollars.

Then came the honey extractor. This sets in another room and is run with a counter-shaft belted from the line shaft. Extractor is started and stopped with levers in the same room which throw belt on and off of pulley in the engine room. Honey is taken out of combs much faster and better than by hand, and without any hard labor.

Next will be a washing machine. This would have been put in before only we had difficulty in finding a good small power machine. We have one in view now, however, that we think will prove satisfactory, and everything is ready for it to be put in place. This will set in a separator room and be belted directly from the line shaft, with suitable levers for starting and stopping. Complete cost will be around ten dollars.

Back of the bee-hive saw stands an old turning lathe waiting to be attached. This will probably not be used often, but it was on the farm and so costs nothing extra.

Another fall we will put in a good box cutter to run with this same power. Hitherto we have turned a long crank and cut boxes with much hard labor—and never half enough. After this season we will cut them with ease—and in plenty.

Expense for gasoline has averaged about twelve dollars per year. The engine runs every day, but not long at a time unless for sawing or extracting. Pumping and separating are done at the same time, but the pump will run with every other machine. Everything but feed mill and wood saw will run with the separator—and often does. The first set of batteries lasted over two years; since we have to replace once a year. Only repairs so far have been a small spring and one bunch of insulating insulators. First cost of engine was \$143.00 but probably the same machine could be bought now for somewhat less.—E.C.L.

The strike of 41,000 coal miners in Illinois which was settled Sept. 7, is estimated, cost the miners \$1,000,000 in wages. The loss to the operators during the five months shut-down is placed at \$15,000,000.