

## CLINICAL ARTICLES.

## A NOVEL METHOD OF RESTRICTING THE MOVEMENTS OF HORSES' LIMBS DURING TREATMENT FOR INJURIES.

By CHARLES SHEATHER, F.R.C.V.S., London.

I HAVE designated this system of restraint "novel" because I think it will prove absolutely new to the members of the veterinary profession, excepting some who may have seen it in application in my own practice.

There can be but few who have not at some time experienced difficulties in the treatment of injuries to horses' limbs, for which

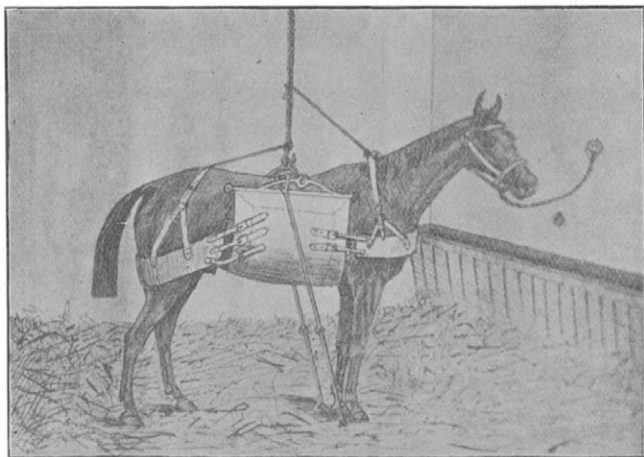


FIG. 1.

Showing the apparatus in use.

absolute rest or modified and restricted movement was most essential to recovery. It was in 1880 that I first schemed the plan delineated in the illustrations, which then, as in many cases since, proved of incalculable benefit.

In the spring of this year a roan mare, the property of the West End Cab Co., kicked in harness, perforated the dash board with her off hind leg, sustaining a long, deep, oblique wound across the front of the hock, traversing the bend. After six weeks' ordinary treatment the wound had made no real progress; a deep, ragged cleft,

free from discharge, but without any sign of filling up, remained. It was due simply to the fact that flexion and extension of the hock could not be prevented, and so the fissure persisted. I thought that, if I could only prevent the movement, healing by granulation might follow. I could see that if the heel could be prevented from moving from the floor, a great amount of rest must ensue. To this end, I placed the mare in slings, and had a bar shoe made to fit the foot, with the bar extended outwards for four inches beyond the hoof, and somewhat curved upwards from the ground (fig. 2, A); in this extension was punched a round hole about half an inch in diameter. A rod was made of three-eighths of an inch round iron, with a collar and slot at its lower end (fig. 2, B); the end of the rod would fit easily in the hole, and allow a split key (fig. 2, C) to be inserted in the slot to prevent its removal, while the collar prevented its passing too

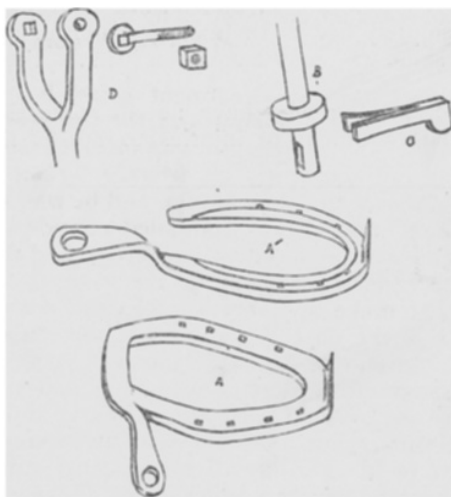


FIG. 2.

For description see text.

far through. At the upper end of the rod, which was of such a length as to extend from the foot to the bar on the end of the girth of the sling, was shaped a V piece or jaw, traversed at its upper part by a bolt, for which suitable perforations were made in the jaw (fig. 2, D). This gripped the bow-like portion of the bar which, in all my slings, rises from the straight bar on the end of the girth, to receive the hook end of the main cross-bar, the hook being received in an eye placed two-fifths of the breadth of the girth from its anterior end.

The shoe was pulled off once because the rod from the shoe to the jaw was not long enough; and the rod was badly bent twice because it was made of three-eighths of an inch rod, which I corrected by making it of three-fourths of an inch rod.

The plan was successful, for under three weeks the wound had healed. The restraint was sufficient to prevent flexion of the hock,

but not sufficient to provoke that feeling of fixation which is so distasteful to animals; the mare could shuffle about on the floor, change her position, and give herself a certain amount of ease and satisfaction by movement, but she could not get her heel off the floor, nor could she flex the hock.

A long succession of cases, including all sorts of injuries, equally successfully treated could be related, occurring since 1880; one more may probably suffice.

In 1894 a thoroughbred stallion, contrary to all expectation, and possibly to the disappointment of some, made a most successful recovery under this plan.

When first seen he had "broken knees" of three months' standing, deep horizontal fissures extending right across the knees, with the surrounding parts enormously swollen. His case was regarded as hopeless; he had got out of all sorts of slings, had been tied up till he fell, and had reached that stage of exasperation which only thoroughbreds can effectually exhibit. The treatment had degenerated into squirting an astringent lotion at his knees, from a distance of ten or twelve feet.

I realised at once that no treatment could be effectual unless movement were restricted; slinging and the application of the leg-irons were advised. The suggestion was received with ill-concealed ridicule. Had he not put slings at defiance, by bursting them and extricating himself from them? In the end he was sent to London, received a low diet in which was concealed considerable amounts of narcotics, was successfully placed in slings, and had the special shoes and leg-rods fitted, the shoes being of the form shown in fig. 2, A', which are simple to make, and very suitable for the fore feet.

As the effects of the narcotics passed off, he realised that he was under restraint, and started kicking; this was promptly checked by hauling him entirely off his feet by the sling pulley; as soon as he quieted down, he was lowered. He repeated the kicking at intervals for two or three hours, but alternate suspension and lowering made him think better of it. During all his violence not a single thing gave way. He became very tranquil, allowed his knees to be cleansed and dressed, and in seven weeks returned to his owner with wounds healed. In the treatment of this case I received the most able assistance from Mr C. E. Edmonds, who was at that time my senior assistant.

This method is not difficult to apply, it allows of a certain amount of shuffling about and shifting of position without flexion of joints, with one exception; the knee may be flexed somewhat by relaxing and dropping the shoulder, and the pastern may be drawn up into an upright position. Both these positions are easily defeated by passing a broad band round the leg above the knee, and attaching it to the eye worked in the rod for the purpose.

This particular form of fixation will suggest itself in those cases of fractured or injured ulna, laceration of shoulder muscles, and to correct the "dropped shoulder" position attendant upon anterior rib fracture. The main points in its application are:—the rod must be carefully adjusted as to length, it must drop into the hole in the shoe extension quite easily, and its diameter should be three-fourths of an inch. The shoe must be well nailed on.

When applying it to the fore limb, it must sometimes be curved outwards and backwards opposite the fetlock joint, to avoid contact with this joint in certain conformations. The jaw at the top prevents this curve getting the wrong way round.

This system will be found far more easy of application and retention than all the splints and bandages ever applied. It is unsuitable for any case suspected of fracture in the lower bones of the limbs.

### CASE OF BOTRYOMYCOSIS IN A HORSE.

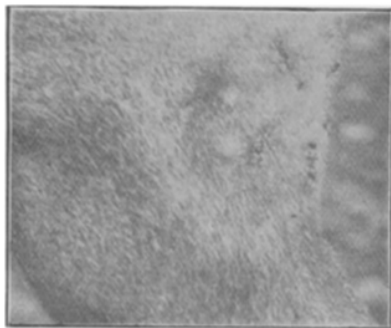
By JOHN B. WOLSTENHOLME, F.R.C.V.S., Manchester.

PATIENT, a red roan cart gelding ; ten years old. Part affected, the skin and subcutaneous connective-tissue at the lower posterior part of the left thigh.

For four years the horse had worked in the shafts of a four-wheeled heavy vehicle ; but at the latter part of 1900 he was put to work in chain trace gears.

The "spreader" or "stretcher" of the traces would ride or be carried on that part of the thigh which is affected ; this may have had some part in causing the lesion.

In November 1900 a small boil, about the size of a hazel nut, formed over the part, and then burst. From this time onward others formed and gave exit to small quantities of pus, which quickly dried.



It was 12th June 1901 when he came under my notice, at which time there were three or four points of suppuration, several cicatrices, and considerable thickening of the skin and subcutaneous tissue around.

At the end of October, when the accompanying photograph was obtained, the area of disease had spread until it occupied both the inner and outer aspects of the thigh, and extended in a perpendicular direction  $11\frac{1}{2}$  inches, and  $13\frac{1}{2}$  inches across.

The skin and subcutaneous connective-tissue is thickened and studded with eighteen depressions of about five-eighth inch diameter, which represent a corresponding number of abscesses and ulcers, most of which are healed.

When an abscess bursts a pale yellow viscid pus escapes, a portion of which dries on the wound and forms a firm crust.