

A. P. BALANCE

Breaking the code

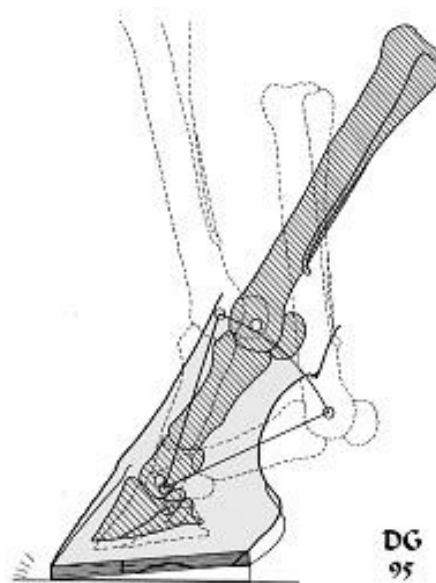
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In order for farriery to make real advances, it is necessary with careful study and investigation, to re-examine and refine our basic tasks, in order that we may discover new facts and information. We need to constantly collect and systematically arrange observations, facts and well argued opinions, presenting the results in an easily accessible format. It is with these ideals in mind, that I continue my examination and analytical assessment of hoof balance.

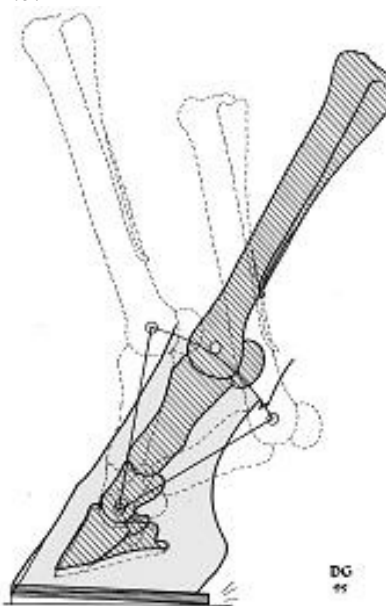
Having initially established a shoeing plan I moved my attention to those odd, but now familiar front feet. These asymmetrical horses with hooves, which require particular attention, could be described as being right or left handed, with the majority favouring the right leg. Without constant attention to hoof balance linked with carefully monitored stable management and work routines, many of these animals seem destined to be labelled pre-navicular.

Those horses afflicted with this big foot little foot syndrome, basically suffer from a hoof capsule distortion problem, caused by their one sidedness. When the hooves are left unchecked, the horse will acquire a more noticeably unlevel movement. This is due simply because of the position of the pedal bone within the hoof capsule.

With information sent to and from receptors located in joints, muscles and tendon. The limb, during its cycle of movement, stretches out to land as normal, however, the rhythm of co-ordination is broken down because as the hoof lands it does so through information based upon the position of the pedal bone, rather than the surrounding hoof-capsule. This causes the flat hoof to land level or toe first, with the upright or rotated hoof landing level or heel first.



(Fig. 1) *Illustrating some stance phases of the flat hoofed limb.*



(Fig. 2) *Illustrating some stance phases of the rotated hoof.*

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One of the problems, which may be encountered when shoeing these peculiar animals, is the loss of one particular shoe. This can be both annoying to the owner and frustrating for the farrier, however an explanation may be found in the horse's own asymmetry. During the canter the leading and non-leading legs are subject to different ranges of movement. A closer look at their individual limb cycles reveals the leading leg has a greater range of flexion in the first half of the stance phase, whilst the non-leading leg has a greater range in the second half. It is the non-leading leg, with the upright or rotated hoof, which has this tendency towards shoe loss. This may be due both to its form and its range of movement, the limb landing earlier and taking off later than its partner, even during supposedly symmetrical gaits such as the extended trot. The immediate answer may be simply to shoe the flat hoof with upright heels to maintain support, but shoe the rotated hoof with close fitting sloping heels, experience being our guide. As farriers we need to remember we can redress and restore hoof balance but by ourselves we cannot balance the horse, if indeed it is possible.

Recognising the horses needs and being able to come up with practical solutions, is a daily requirement of our profession. The hoof holds many secrets, so we must learn to read the signs and to ensure we understand its message we must first break the code.

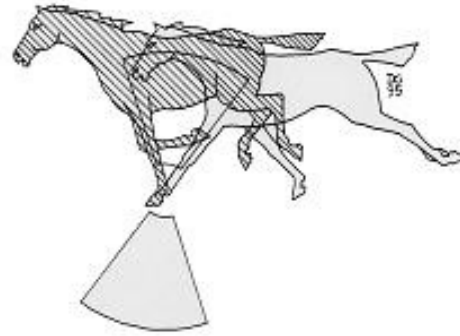


Fig.3
The range of movements of the left lead limb.

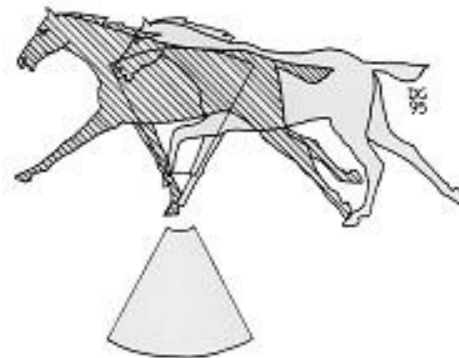


Fig. 4
The range of movements of the right non-lead limb

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