

A. P. BALANCE

Some odd but not so strange feet

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Hoof balance is about achieving a state of equilibrium, a state of optimum stability within the hoof capsule. To achieve this, at times it would seem that rather than working with nature, we may appear to be working against the horses natural influences.

Our skills as farriers should be seen to exist not only for what we do, but also for understanding what we cannot achieve within the parameters, set by the character of the hoofs we work on. In essence I believe whilst trimming, or giving support, to maintain the equilibrium is a positive act; trimming or applying forces in the concept of correction can be both negative and misguided. In brief, good farriers performing their daily function of rational hoof care should simply be redressing the balance.

Those who have read previous issues of Forge94 will know the way in which I have already looked at A P Balance, by providing a definite shoeing plan in the form of the "one and an eighth" theory, producing a guide in the shape of the "one fat finger" and suggesting a degree of tolerance by using the distance between the pedal and fetlock joints as a minimum shoe length.

In this issue, I would like to explore A P Balance a little further. Although the hoof and its mechanism is more complex than anything I can put down on paper, I have found a condition that I feel helps to explain some of the many aspects that surround A P Balance.

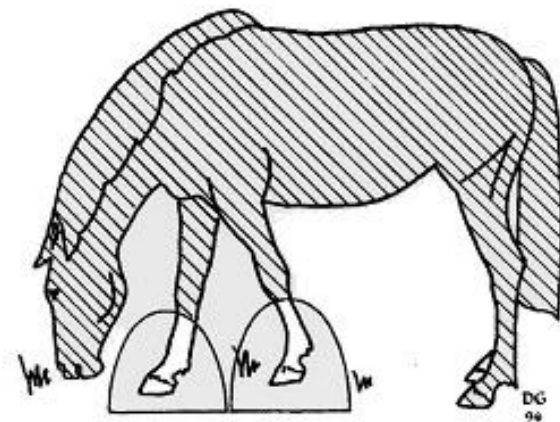
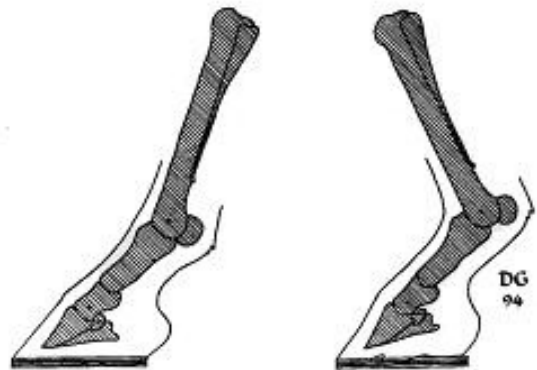


Fig. 1 Typical grazing stance

The type of animals I have chosen to illustrate theories on A P Balance can be readily identified by the manner in which they graze (Fig. 1). Five minutes observation is all that it usually takes to identify them. Most animals spend quite a few hours each day grazing freely. Observe them in the field and all will be revealed. The horse who grazes predominantly with one particular foot well forward, with the other tucked well underneath its body, forms its own hoof conformation, the forward hoof becomes flat whilst the rearward hoof becomes rotated. There are many variables of this arrangement; nevertheless it is a definite occurrence. While most horses graze in this position, as they move forward they assume an alternate stance. However these horses almost perform a skip as they bring the rotated hoof in line with its partner, only for the flat hoof to be whisked forward to adopt its customary stance. So what is happening?

A closer look at this congenital configuration reveals and explains some of the enigmas that surround A P Balance (Fig. 2).

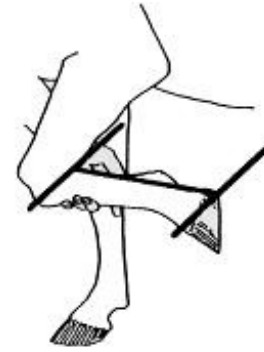


(Fig. 2) Schematic diagram displaying skeletal structure

The flat hoof is flat simply because of the forces it is subject to for long periods. When trimming, the heels of the hoof should neither be intentionally raised nor lowered. Instead balance should be restored with shoeing providing support and protection. The upright or rotated hoof pivots around the centre of the pedal joint tilting the bone into an arguably natural but detrimental position. Left unchecked the combination of the two hooves becomes a recipe for either a lame or mechanically unsound horse.

Both feet can suffer with bruising at the seat of corn, the flat foot because of the compression and constriction to the posterior of the hoof, and the rotated foot, because of its instability. The combination of the two hoof types on one animal may help us to understand more about hoof construction, but there are other ramifications of a deeper nature.

The upright or rotated hoof because of the lack of compressive forces to both the heels of the foot capsule and the fetlock joint creates that which I can only describe as a longer leg. The difference between the two limbs can be quite astonishing. Measurements from the knee to the bearing surface of the heel can be made using an adjustable T-square device (Fig. 3). The difference between the two limbs I have found can be as much as an inch and a half. This leads to all sorts of problems affecting the horse's gait. It is at its most obvious when the horse is asked to perform circles, the horse being noticeably unlevel with the longer leg, or rotated hoof, on the inside. Farriery I believe can help some of these horses simply by lowering the heels of the rotated foot and redressing the balance. A further reduction can be made by thinning the heels of any shoe fitted.



(Fig. 3) Method of lower limb measurement

However the horse and farrier are not the only influences with control of this particular problem. The owner usually dictates when the horse is shod and how much grazing time the horse gets. It is interesting that when these horses are confined to the stable, where hayracks and feed mangers are used, the difference between the two limbs is diminished.

So next time you are confronted with a pair of feet that do not match, try influence and not force, and yes, you have got a problem.

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