Swiss engineering and the entrepreneurial Spirit

Running shoe designers can appear guilty of redesigning and reinventing the same old shoe year after year and simply labelling it as new and improved. Why? Because it's fast and easy, and because research costs time and money.

To their defence, many product engineers have their new concepts shelved by impatient marketing managers focused on quick turnover . A colour-update with a minor tweak is a more simple and cost effective option than some new and often unproven innovation. The entrepreneur takes a back seat once again..

Entrepreneurship itself requires vision, timing support and a commitment to product first .

Most great innovations and revolutionary designs come from individuals who are deeply committed to their craft with a burning desire to improve anything they touch . Just as entrepreneur and Nike co-founder Bill Bowerman was innovative , making use of his wife's waffle iron in an effort to improve shoe traction , we now have a young group of Swiss runners following that lead and thinking outside the box.

Using back yard garden hose and a spot of superglue, these free thinkers were able to alleviate the pain of a chronic Achilles' tendon in one of their colleagues. World Duathlon champion Olivier Bernhard.

Bernhard cut up some left over garden hose and pasted pieces of it to the bottom of his shoe in an effort to create a mechanical outsole that would help him mimic his natural gait. This original and unique design worked in conjunction with the shoe's traditional midsole to help take a positive 'step' towards a pain free achilles .

With this entrepreneurial spirit the On footwear company began .

Yet strangely it was not On's peculiar outside design that caught my attention . I noticed that certain shoe models were surprisingly inflexible in the forefoot. This feature was part of another design collaboration aimed at gaining an efficient heel toe transition.

In an effort to create a more propulsive and energy efficient toe-off, the Swiss team decided to insert a firm plate in the midsole of the shoe thus producing a stiffer flex pattern across the metatarsal heads. The resultant stiff rockered forefoot has proven useful not only for runners but also for individuals suffering from various types of metatarsalgia including hallux limitus ,neuromas and arthritis.

Combine these sole innovations with uppers made of seamless stretch elastic material and the On shoes are more than just athletic therapy. They are a Swiss inspired orthopaedic tool.

Other companies have also made use of high density plates in their running shoes.

Mizuno often extends their hytrel plastic wave plates into the forefoot . (Wave Creation, Wave Prophecy, Wave Enigma).

Trail shoes made by ASICS AND NEW BALANCE employ 'rock plates' under the foot in an effort to protect the forefoot from stones and roots.

Like the On propulsion plates , these shoes deliver a secondary benefit .....effective splinting of the forefoot and a quicker transition through toe off.

Revolutions in footwear design happen once every decade or so. Only time will tell whether Bernhard's garden hose innovation will revolutionize the running shoe industry .

I am confident that the unique architecture of On footwear represents an important evolutionary moment in running shoe design.

The Swiss have indeed reenergized the entrepreneurial spirit when it comes to performance and orthopaedic footwear. It remains to be seen if other companies will take up the challenge.

Please do not hesitate to call or email me with your thoughts on innovation and functional footwear design

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