

## EFFECTS OF CLOTHING ON THE HUMAN SKIN.

The London Lancet presents some excellent ideas on the subject of clothing. Let a person in bed be covered with sufficient blankets to promote perspiration, and let those blankets be covered with an oil or India-rubber cloth, or other impervious fabric; in the morning the blankets will be dry, but the under surface of the India-rubber cloth will be quite wet. The blankets by their dryness, show that the exhalations of the body would pass through them to the surrounding air had they not been intercepted by the impervious outer covering. Thus it is inevitable that the habitual use of an impervious covering is injurious. Its effect must be to place the body in a constant vapor bath in which the insensible or healthy perspiration is constantly becoming condensed into the form of humidity, and being prevented from passing off in its elastic and invisible form, the perspiration is thus constantly checked, and skin eruptions must be the result. Nevertheless, it must be less injurious to check perspiration in some degree, by a water-proof overcoat, than to get soaked with rain.— There can be no doubt but water-proof fabrics may be made very light, and so formed as to be worn in wet weather, and yet allow some room for perspiration. But still they are unhealthy and should never be put on but in cases of extreme necessity.

Any person who has worn a water-proof outer garment for some time, knows by experience that it causes weakness and chills. No person should wear a garment but such as allows the vapor or perspiration which is continually exuding from the skin to pass off freely. For this reason a frequent change of entire clothing conduces to health. Clothing should be light and not too tight. A happy change in the fashions has taken place within a few years; it is the substitution of loose outer garments for the old fashioned, tight close and pinching overcoats. Too few flannels are worn in America, especially along the eastern coasts; where sudden changes are frequent, and where many cold rains fall during the winter season. Children should always have their outer garments made of woollen materials. Although Indian-rubber over-shoes are excellent for walking in the street in wet weather, or when there is a thaw with snow upon the ground, they should never be worn at any other time, and should be taken off as soon as the wearer enters the house.— They prevent perspiration in a great measure, and are only useful as a lesser evil than getting the feet wet from outside water.

## A Lovely Incident.

What parent, on reading the annexed extract, can fail to reflect on the lesson it suggests? How important that, when the parent has departed, the example left behind them may be such as the child can be thankful for. To watch for and train the budding thoughts of an artless child, is one of the noblest offices that father or mother can fill.— Truly hath it been said, that "out of the mouths of babes and sucklings strength hath been ordained." What could give greater strength to that widowed heart than such a scene with her little daughter.

"She knelt at the accustomed hour to thank God for the mercies of the day, and pray for care through the coming night; as usual, came the earnest—'God bless dear mother and'—but the prayer was stilled, the little hands unclasped and a look of agony and wonder met the mother's eye, as the words of hopeless sorrow burst from the lips of the kneeling child. 'I can not pray for father any more!' Since her little lips had been able to form the dear name, she had prayed for a blessing upon it; it had followed close after mother's name, for he had said that must come first; and now to say the familiar prayer, and leave her father out! No wonder that the new thought seemed too much for the childish mind to receive."

I waited for some moments, that she might conquer her emotions, and then urged her to go on.— Her pleading eyes met mine, and with a voice that faltered too much almost for utterance, she said, 'O, mother, I cannot leave him all out: let me say, thank God that I had a dear father once! so I can still go on and keep him in my prayers.' And so she always does, and my stricken heart learned a lesson from the loving ingenuity of my child. Remember to thank God for mercies past as well as to ask for blessings for the future.

The Peninsula of the Crimea, towards which all eyes are now directed, has been the theatre of many warlike operations. One account states it is said, that since the time of Herodotus (B. C. 450) it has been conquered and devastated by more than seventy different nations. The Alans and Goths, the Huns, the Petchengues, the Comanes,

and numerous other predatory tribes, in turn, occupied the country. It was settled by the Genoese in 1193, who were expelled by the Crimean Tartars, under a grandson of Ghengis Khan, in 1477. These predatory hordes settled in the country, and at one time, in conjunction with the Poles, came very near conquering Prussia itself. They were nominally subject to Turkey, but Catherine II. of Russia conquered them, and annexed the Crimea to her dominions. Such had been a favorite project of Peter the Great, and was prevented only by his unfortunate expedition to Shumla. The population of the peninsula is variously estimated at from two to five hundred thousand, of whom half at least are Mongolians or Tartars, and profess the Mahomedan religion.

## ON HORSE-SHOEING—AS IT IS, AND As it Ought to be.

BY M. A. CUMMING, V. S.

To the President and Members of the St. John Agricultural Society.

Continued.

Another evil resulting from the length at which the toes are commonly left is interfering. The horse, finding the long projection in front of his foot as so much leverage acting to his disadvantage gradually gets into a habit of shifting it, by raising himself from one or the other of the quarters. This is still more the case when, in addition to the long toe left on the hoof, a small round knob of steel is set into the point of the shoe, as if in contempt of all that nature teaches. With these absurd contrivances placed between his weight and the ground that supports it, it is next to impossible for a horse to raise himself evenly upward and forward, and hence the number that one way or another interfere. If in raising his weight from the ground, the pressure be upon the inside quarter of the foot, then the thick part of the pastern is thrown inward, in the way of being struck by the upper edge of the hoof of the other side.— If the cant be the other way, and the outside quarter raise the weight, the inside edge of the shoe is thrown round and upward, and runs the risk of cutting with it the opposite leg. Even when the horse from having a naturally good gait escapes both these evils, still he is not free from trouble caused by this shape of shoe.

The fore foot of the horse, as nature makes it, has no projection in front and downward as that which the smiths here give it, but rather the reverse. The sole surface at the toe is commonly broken off and notched back at the middle, so that the pressure, when the foot strikes the ground or the animal is raising his weight, is distributed over the whole front of the foot. In accordance with this the coffin bone, which fills the internal cavity of the hoof has the same turned up and notched back form. In England, France, and on the Continent of Europe generally, wherever Veterinary Schools exist, and scientific attention is given to shoeing, this natural form of foot is more or less followed in the shape of the shoe, and the animal has preserved to him, along with the protection from wear which the shoe gives, the position of tread for which nature has constructed the other mechanical arrangements of his organs of motion. Why it is not so here is partially perhaps due to the use of buttris for cleaning out the foot when it is shod, as it is impossible with this antiquated instrument to bring the hoof to the proper shape in all its parts; but it is more so to want of study on the part of those who shoe, of the structure of the foot, its uses, and the relation existing between it and the other motive organs, the bones, tendons, and ligaments of the limbs.

Let me describe for an instant the way the horse is commonly shod here. The foot an inch longer at least (often more) in hoof than it should be, and brought out to a point instead of being rounded back. On this point is placed in addition to the unnatural length of the shoe, a round button like a knob of steel, with perhaps only a fourth part of an inch of level bearing to rest upon the ground. When the ground is soft it is all well, as this projection penetrates till the flat of the shoe comes to bear the weight; and all the extra labour the horse has is that of raising himself an inch or two more than he needs at every step, and digging up an unnecessary quantity of gravel. But the case differs when the horse treads on anything impenetrable, as a piece of stone, or smooth hard rock. Then the difficulty of raising his weight is added to by that of balancing himself while doing so, upon the pivot by which the point of his toe is terminated. The horse not being furnished by nature with muscles of abduction and adduction in the fore limbs (that is muscles for drawing the legs outward or inward, from or to the body)

has but little power of balancing himself from falling sideways. The instant he begins to raise his weight upon the narrow base of less than half an inch on which the smith has propped him, the tendency is for him to topple over, which he does till the side or quarter of the shoe, either outside or inside takes the ground and gives him farther support. This however is not done without a cant or jerk of all the joints of the foot. True, it is the work of an instant, and the horse recovers himself, and goes on before we can almost see it is done. But then the same occurs a hundred, it may be a thousand times a day when the roads are rocky, or dry and stony; canting, twisting and jerking the coffin pastern and fetlock joints at every step, and yet, we daily meet with those who gravely wonder how the ringbones swelled fetlocks, sprains, and spavins, are all produced.— The wonder rather is, considering the improper and unnaturally shaped feet and shoes, that there are any sound.

Another of the errors in shoeing which I found current when I came here, was the want of a tip, or projection, turned up on the point of the shoe for an abutment against the toe of the hoof. It seemed to me that in respect of this, the smiths had turned the shoe wrong side up, giving a tip downwards where nature never designed it to be and denying one upwards where it was essentially wanted. As from the long toes, so from this also the fore feet are the greatest sufferers. I have already mentioned the function of the fore limbs to be mainly the support of the weight, and its transference forward from point to point during the motion of the animal. In doing this a considerable degree of concussion is inflicted upon the foot every time it strikes the ground. The direct on of this concussion is neither right downward, nor right forward, but between the two; partaking of the horizontal motion of the body of the animal along the road, and of the perpendicular direction of the descent of his weight.

Every one knows the additional power of resisting or sustaining concussion and weight, any fibrous substance has if struck or pressed in the direction of the fibres, besides if acted on in any other. The hoof of the horse is composed of an infinite number of dense fibres, strongly agglutinated together; and to enable it with the greatest advantage to meet and support the concussion there is when it strikes the ground, these fibres are every one of them so placed in the hoof as to receive the shock directly on their ends. In addition to this, the front part of the hoof where the force of the concussion is greatest, is twice or thrice as thick and strong as the side and heels, its slope indicating exactly the direction of the descent of the horse's weight.

Now all this thickening and strengthening and sloping at the toe of the fore foot is not without any obvious design, which is to enable it to receive without injury the shock upon it when the horse is thrown forcibly forward, as in leaping galloping, or even hard trotting, especially if down hill; and by turning up a tip on the shoe as an abutment for the toe to press against when it strikes the ground, we make both shoe and foot to act together in harmony, we save the shoe from being knocked off, and at the same time promote the natural action of the foot. In shoeing without this simple expedient, we frustrate the design which nature evidently had in making the toe so strong; and throw the concussion this strength was designed to meet upon the nail holds of the weaker parts of the foot, the sides and heels.— These have not only to support the weight of the shoe, but also to bear the force of the foot striking the ground; and the shoe being found from these two causes more inclined to come off than is wished, recourse is had to an extra amount of nailing, not only at the toes, where from the thickness and want of spring in the hoof it is harmless, but round the quarters and even to the heels, where by its pinching and fettering effects it is productive of the worst of consequences; corns, contraction and founder being its daily fruits.

No disease is more certainly a consequence of shoeing than corns, and the number of horses lame from this here, is almost beyond belief. I have met with them in feet where they had caused lameness for years, and been shod over all the time without discovery. In such a case we may blame the shoer for oversight but not for wilful misdoing; but what shall we say when a corn is discovered, and to some extent relieved by the knife, and then the shoe refixed on the very plan by which the evil was originally produced, yet such things happen not once or twice, but daily.

Two causes mainly contribute to the production of corns; nailing of the shoe too far back by its preventing the spring of the foot is one. The other is unequal pressure of the shoe upon the sole

and heels. When both are combined corns are next to inevitable.

A reason or at least a pretext for heel nailing I have already noticed. The extent to which it is carried and the uniformity of its occurrence show that those who practice it never entertain a doubt of its propriety, nor a suspicion that the hoof of the horse is an elastic and organized structure, contracting and expanding alternately at every step, and consequently suffering in proportion to the extent to which it is fixed and fettered.

The unequal pressure between the hoof and shoe which leads to corns and other harmful consequences, may arise either from the shoe being improperly made, or the foot insufficiently pared out. It is rare that we meet with a shoe here on which an attempt has been made to form a seat for the sole; more rare still the attempt is successful. The seat when tried to be made is commonly only a concave form given to the entire surface of the shoe next the hoof instead of extending only as far outward as the sole, and leaving a level rest for the edge of the crust. Such shoes should be called scooped rather than seated, and are worse to make a horse go with, than even those flat made.

But the cause of corns is often to be found in the way the foot is prepared. I have already adverted to the buttris as being instrumental in the production of long toes. It is equally so in that of corns. Of this no better proof is needed than the disappearance of the one simultaneous with the disuse of the other; this has happened generally in Britain within the last thirty or forty years, and particularly in the practice of regimental shoeing.

Professor Coleman of the Veterinary College of London, writing in 1809 says: "There are very few horses that are not attacked with corns. This is so common a disease that nine hundred horses out of a thousand have it." Mr. Percival, Veterinary Surgeon to the First Life Guards, in his work on lameness in horses published last year says:—"That faulty shoeing is the chief and predominant cause of corns cannot anywhere receive more satisfactory demonstration than in the Army.— Corns and quitters and contracted feet were in former days a affliction of the Cavalry as in other places, whereas at the present day these diseases are all but unknown to Veterinary Surgeons of Regiments: and all is owing to an amended practice of shoeing."

My own experience, if it could add anything to the above is this: during seven years practice immediately preceding my coming here I did not meet with more than five or six cases of lameness from corns; and in a record of more than a thousand cases that I kept during a part of that time, noting them in the order in which I treated them, there is only one of corns, and that a slight one. Since I came here there are few days that I do not see horses lame from this cause, although it can be but a fractional part of the evil that comes under my observation.

In blaming the buttris for producing corns and other evils, a few words of explanation is necessary. From the shape of this tool, its tendency in cleaning out a foot with it, is to cut away both crust and sole, bars, heels and all to one level.— In fact it is hardly possible when using it to leave one part more prominent than another, especially when it is the crust and bars that should be left and the sole removed. The hoof of the horse though strong and tough to resist external agencies, is by no means a stiff or rigid body, but springs and expands at every step, and along with this expansion the sole descends and flattens out from the weight of the horse resting on the coffin bone inside.— Now if this descent of the sole be not allowed for in fitting the shoe, either by a seat worked in the shoe itself, or by cleaning out the sole to a lower level than the crust, then the sole in its descent presses on the shoe, and the sensitive part inside is squeezed between it and the coffin bone. As the heel is the part of the foot in which expansion is greatest, and the descent of the sole and coffin bone most, and as the angle between the bar and crust is the place from which the sole is with the greatest difficulty removed; so it is in the heels that the bruising and corn producing action of bad shoeing is most to be met with. Yet I have seen on all parts of the sole round near the crust, bruises caused by pressure of the sole downwards on the shoe. The way therefore in which the buttris aids in the production of corns is from its unfitnes for effectually removing the more depressed parts of the unnecessary horny sole. In the hands of a person aware of how the foot should be dressed, and who will take the drawing knife and rasp to give the sole, heels, and toe, the proper form, after doing the rougher part of the work with the buttris, it is an efficient and useful tool; and so long as people allow the feet of their horses to grow for six months at a time without removing the shoes, they can hardly expect it to be laid aside.