Correspondence.

THE PRINCIPLES AND PRACTICE OF SHOEING.

BY C. W. GREGORY, MEDALLIST AND PRIZE ESSAYIST ON "ANIMAL HEAT," "THE SKIN AND ITS DISEASES," "THE DIGESTIVE SYSTEM," &C.

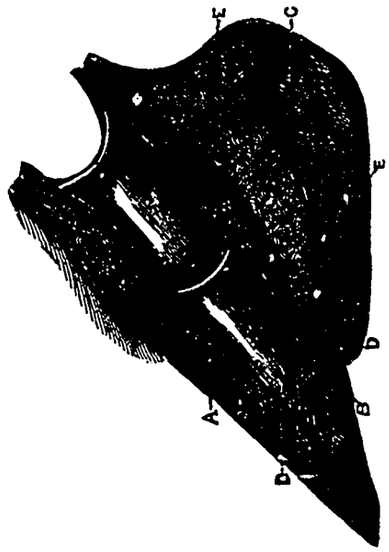

FIG. 1.—Section of Foot—A, Wall or Crust; B, Sole; C, Frog; D,D, Sensitive Foot; E E, Sensitive Frog.

FIG. 2.—Ground Surface of Unshod Foot—A,A, Wall or Crust; B,B, Sole, C, Frog; D,D, Bars.

To the Editor of THE CANADIAN BREEDER, *from the Author.*

(*Concluded.*)

LEATHERS

are often a very useful adjunct to the shoe, and are especially useful over rough roads and paved streets, for thin, tender, flat, or pumiced feet; sometimes for corns, for sandcracks, and false quarter. Some say leathers diminish concussion, others that they cause too much heat; but I have seen no evidence to support either idea. Ring leathers are sometimes used—that is, a piece of leather the shape and width of the shoe only—and are useful for pumiced feet, and three-quarters length of shoe for corns and inward curvature of heels. In fitting a leather it should be the full or slightly over size of shoe, and not wetted much nor stretched by hammering, as it is apt to shrink again from under the foot. When the leather and shoe are ready, first apply a smearing of Barbadoes tar, or tar and tallow, over the sole and frog, then lay a pellet of tow loosely on each side of frog, filling the corner well up, also a small pellet in the cleft of frog, after which put on the shoe in ordinary way, rasping off the projecting leather level with edge of foot and shoe.

HUMANITY.

It is with much regret I feel it necessary to call attention to the frequent needless cruelty and inhumanity practised in the shoeing forge, although there are a number of exceptions in which the forge is conducted with kindness, and whose proprietors are totally exempt from this charge; yet harshness is exceedingly prevalent where men display hastiness and irritability of temper by whooping, hitting, twitching nose, and even the ear, dropping the leg suddenly, especially a stiff-legged horse, either of which simply makes the horse more nervous or more vicious. To shoe a colt, a nervous or a vicious horse, a man should stand quietly in front, or same side the head as the farrier is working, hold the bridle (without blinkers) loosely, and allow the horse to see what is being done, without any or but little patting or talking. On no account allow any person to stand on opposite side; but the horse may stand by a wall. The farrier should then quietly smooth down the shoulder and fore leg; but if the horse be nervous quietly withdraw, and in a few minutes repeat this, and pick up the leg, look at and put it down again. Do the same with hind leg, and, if done with quiet firmness, you will soon gain the confidence of the colt or horse, and feel surprised how easy he will allow you to shoe him. A little time spent in this way will be more than saved by the quickness in the execution of the work.

If the horse be intractable, vicious, but young, put on knee-caps and strap up one fore leg to the arm, smooth him over but not pat; the former he is accustomed to among other horses, but patting is entirely new and unintelligible to him; after doing this leave him for five or ten minutes with one leg strapped up and with the man still mutely holding the rein, then handle him all over the body and legs; continue this treatment until he will allow you to handle him all over quietly, when the leg may be liberated, and you will generally be able to shoe him as quietly as any other horse.

If the horse be old, vicious, and kick out sly or suddenly, there is danger of injury to the farrier, who should then protect himself by using a side-line; that is, by securing a stout list or rope with a noose around the heel of hind leg, and pass the other end through an ordinary collar on the neck, on the same side as hind leg secured, draw the leg forward until the toe can just touch the ground, then give the slack end a twist around the taut rope, which may be held in place by the man at horse's head. A fixed loop in the rope the size to fit neck may be used instead of collar, and a hobble around hind pastern instead of bare rope would be less likely to injure. Never use a twitch unless it be absolutely necessary, and then first have everything in readiness, so as to keep it on the nose as short time as possible, but on no account put a twitch on the ear; whilst using a twitch do not jerk, shake, or push the head about with it, as horses are liable to be goaded on to reckless wildness.

The principal and safest means of overcoming a nervous, irritable horse is quiet kindness with cool firmness, and to this end one, or at most two, can invariably do more than a number of persons; and when finished quietly smooth the horse over, so as to make friends before parting.

HOW TO MAKE GOOD BUTTER.

BY PROFESSOR SHELDON.

The Raising of Cream.

The current generation of men has invented more ways of raising cream than all the preceding ones, and in this we see the most striking evidence to be found of the extraordinary activity which pervades the domain of the dairy. These inventions include, indeed, one of the most curious and wonderful machines which mechanical science has ever produced—a machine, by the way, which is quite as effective as it is wonderful, and which has already become indispensable in many large establishments. I refer now to what is known as the centrifugal cream-separator. Of the various adaptations of the Swartz system, in which the employment of ice is the salient feature, it is unnecessary to give a description, or even a mention, because few if any of them are not at all adapted to this country and climate, and because in all large establishments the "separator" has already superseded them, while for small ones the ancient open-pan system is, when properly employed, good enough for all practical purposes, simpler than most others, and thoroughly reliable.

The centrifugal separator employs, as its name suggests, a natural law of force, and in a most strikingly effective manner. There are already several of these separators, wholly disparate in character and appearance, but employing the same principle—that of centrifugal force—in the separation of the cream from the milk. And the application of this natural law is, in this case, uncommonly simple and effective, working perfectly, quickly, and continuously. A hollow vessel, made of great strength—resembling an exaggerated orange in form, in one of the machines—revolves at a great speed; the speed, however, varies from 1,500 to 6,000 revolutions per minute, in the different machines. The milk is made to run into the vessel in a stream, like the stem of a clay tobacco pipe, and instantly responds to the motion. The effect of the motion is to separate the cream from the milk—the lighter from the heavier portion—whereupon the latter gravitates to the outer, and the former to the inner, circumference of the rotating vessel, tubes being arranged to conduct them away as fast as they separate. The amazing simplicity of these machines, and their efficient action, has made them, in the short space of six to seven years, to assume the position of a thoroughly practical instrument, and their permanence is distinctly assured. I saw the germ of these machines—the idea from which they have been evolved—exhibited at the International Dairy Show in Hamburg in 1877, and since that time they have been simplified and improved to a degree which seems to exclude the desirability of much further alteration. The advantages fairly and justly claimed for the centrifugal separator are these: that perfectly fresh cream and skim-milk are produced, that less cream is left in the skim-milk than under any other system, that fewer vessels and utensils are needed in the dairy, that the risk of having sour milk and cream is entirely removed, even in the hottest weather, and so on. The advantage of having fresh cream and fresh skim-milk, where both of these are sold, is of course abundantly obvious; and, even in the domain of butter-making, it is advisable to have the cream severed from the milk before any acidity has developed, even though the cream may afterwards be kept until it has soured more or less. On this point I shall have more to say later on.

The centrifugal machine, however, is too