

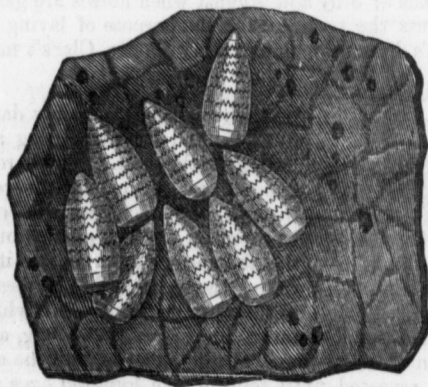
The eggs of the horse *Cestrus*, which are white and of conical form, adhere to the horse's hair as shewn in fig. 27. They are furnished with an operculum or lid which at the time of hatching, about twenty days after they are deposited opens to allow of the

Fig. 27. Eggs of the Horse Breeze Fly deposited on the hair of a horse. exit of the young larva. It was at first supposed that the horse licks off the eggs thus deposited, and that they are by this means conveyed into the stomach, but Mr. Bracey Clark says, "I do not find this to be the case, or at least only by accident, for when they have remained on the hair four or five days they become ripe, after which time the slightest application of warmth and moisture is sufficient to bring forth in an instant the latent larva. At this time, if the tongue of the horse touches the egg its operculum or lid is thrown open, and a small active worm is produced, which readily adheres to the moist surface of the tongue, and is thence conveyed with the food to the stomach." Thus a horse which has no ova deposited on him may yet have bots by performing the friendly office of licking another horse that has."

It is worthy of remark that it is probable the greater part of the eggs deposited by this fly are taken up in consequence of the irritation of other flies, which by their stinging cause the horse to lick himself, and thus receive the larvæ of the *Cestrus* on the tongue and lips, whence they are conveyed into the stomach.

The larva or grub when first hatched from the egg, is a small, active, rather long worm, but as its growth advances it becomes thicker and broader, and set with bristles.

Fig. 28. Portion of the Stomach of a Horse with larvæ of *Cestrus equi* adhering to it.



The body is of a whitish or yellowish red colour, and is composed of eleven segments, armed at the lower edge with a double row of triangular spines or bristles, large and small alternately, black at the point which is always turned backwards. The larvæ usually hang in clusters from the lining of the stomach, see fig. 28; they maintain their hold by means of two dark brown hooks with which their head is furnished. The spines with which the whole surface of the body is provided contribute to fix it more solidly, preventing the grubs by the manner in which we have seen they are placed from being carried away by the food which has gone through the first process of digestion.

The larvæ are generally found adhering to the white insensible lining or tissue of the stomach. They make small deep round holes wherever they adhere to this lining, and sometimes penetrate through it, but not through the other layers or coats of the stomach.

When they are removed from the stomach with a sudden jerk so as not to injure them, it is said that they will if fresh and healthy attach themselves to any flaccid membrane, and even to the skin of the hand.

The larva when matured leaves the membrane to which it has been attached, and traversing the whole length of the intestinal canal, leaves it by the anal orifice, and falls to the ground, where seeking a suitable place of retreat it undergoes the change into a chrysalis, the skin hardening, and becoming a dark reddish brown colour. After remaining torpid for a few weeks in this state, the perfect insect having assumed its mature form bursts the lid at the anterior end of the chrysalis, and makes its exit. In a few hours afterwards having dried its wings it flies off and seeks its mates.

It is curious to note the agitation and terror produced both by this fly and by another horse breeze-fly (*Gasterophilus hæmorrhoidalis*, Leach), which deposits its eggs upon the lips of the horse. This latter is described by Mr. Clark as "very distressing to the

animal from the against the grounding this mode it by galloping and tease him, sue him. These stoops to graze themselves during point of the abo

Mr. E. Ver man and domes

The amount many writers ch deny this and co only by experim and be satisfied causes are comm serious trouble, paratively easy, they may differ removing and d larvæ when obs can be removed scissors. A was countries the gr in order to remo from the stomac and in cases wh the intestines ar mon use, but sh stances is to kee sustain the attac place without se to special medic if possible in ac



Fig. 29.