

Bee-stings.

I AM requested by a subscriber to *Gleanings* to explain how the bee-sting is removed from one's skin when broken off in the act of stinging. He suggests that, if it does not work out, it must be absorbed by the system; in which case he thinks that some bee-keepers must be largely composed of stings.

The skin consists of two layers—the outer scarf skin, or cuticle, also called epidermis, and the inner true skin, or corium, also called cutis vera. The outer skin is made up of what is known as scaly, or pavement epithelium; that is, it consists of innumerable minute overlapping scales. The inner scales contain pigment in their substance, and thus the color of skin. The abino has no pigment, and hence his skin is transparent, and looks pinkish, as we look right through and see minute blood-vessels filled with blood. The inner skin consists of an outer part, which, like the cuticle, has no nerves, and so is not sensitive to pain or touch. This is made up of white fibrous tissue and small, involuntary muscles that contract if the skin is chilled, and drawing the skin away from about the hairs forms the well known "goose flesh." Beneath this layer, which is known as the reticulum, because of its intercrossing fibres, is the papillary layer. This is the very inner part of the skin. It takes its name from the fact that little teat-like processes—papillæ—push up against the outer part of the skin. The ridges seen on the inside of our hands are but the elevations of these papillæ. Into these papillæ from beneath come nerves and blood vessels. Thus from here comes all nourishment to the outer skin; and here is the sensitive part of the skin. Thus, a bee to hurt us must push its sting through the cuticle and reticulated part of the corium till it pierces the papillæ, where the blood receives the poison, and the nerves twinge with its venom.

Now, as we understand the anatomy of the skin, we can see how the sting, if broken off in the skin, is loosened and liberated. The scaly, or outer skin, is constantly being worn off. When we bathe, the water is often clouded with these minute scales. The snake sheds its scales once a year, but we are doing it all the time. As these scales are constantly wearing off, any minute portion of sting which is held in them is also worn off and separated from the body. Even if a small portion of the sting is caught by the reticulum, the part would suppurate and loosen the sting, as is done with shivers that enter and are caught and held in the skin. We thus see that a bee-keeper is not made up of stings by any means.—A. J. Cook in *Gleanings*.

Points in Judging Honey.

EDWARD J. Gribbins writes in the *British Bee Journal*:—This subject has again come to the front, and as an exhibitor, and occasionally as judge, I should be very sorry to see a definite scale of marks fixed by the B. B. K. A. in the same way that a scale of points is fixed and recognized by poultry and pigeon societies, &c. If all those who agree that a fixed standard is wanted would write to your paper, the committee of B. B. K. A. would doubtless be so impressed with the strength of the agitation that before another season the matter would be arranged. I hesitate very much to suggest a scale of marks, as I think a committee of all the judges recognized by the B. B. K. A. is the proper source from which such should come, but at the same time I should like to give my ideas on extracted honey. In judging all honey it is essential to remember that we are judging an article intended for sale. If an article is unattractive in appearance very few would buy, however good the quality; on the other hand, if attractive to the eye, but not nice to the taste, no repeat orders would come. I should therefore classify the points as follows:—

A. Quality.

- | | |
|----------------|----|
| 1. Flavor..... | 40 |
| 2. Aroma..... | 10 |

B. Appearance.

- | | |
|---|----|
| 3. Consistency..... | 15 |
| 4. Color..... | 10 |
| 5. Clearness and freedom from wax and dust..... | 10 |
| 6. Neatness of get-up..... | 10 |
| 7. Uniformity..... | 5 |

Total 100

The Irish Beekeepers Association has formulated a standard which is as follows:—

FOR SECTIONS.

- | | |
|---|---|
| Completeness and finish..... | 4 |
| Color of honey and comb, &c..... | 3 |
| Uniformity..... | 1 |
| Flavor and aroma..... | 5 |
| Attractive appearance in ways not previously mentioned..... | 5 |
| Density of honey..... | 2 |

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EXTRACTED.

- | | |
|--|---|
| Density..... | 3 |
| Color and brilliancy..... | 4 |
| Flavor..... | 5 |
| Aroma..... | 1 |
| Uniformity..... | 2 |
| Attractive appearance in way not previously mentioned..... | 5 |

20

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