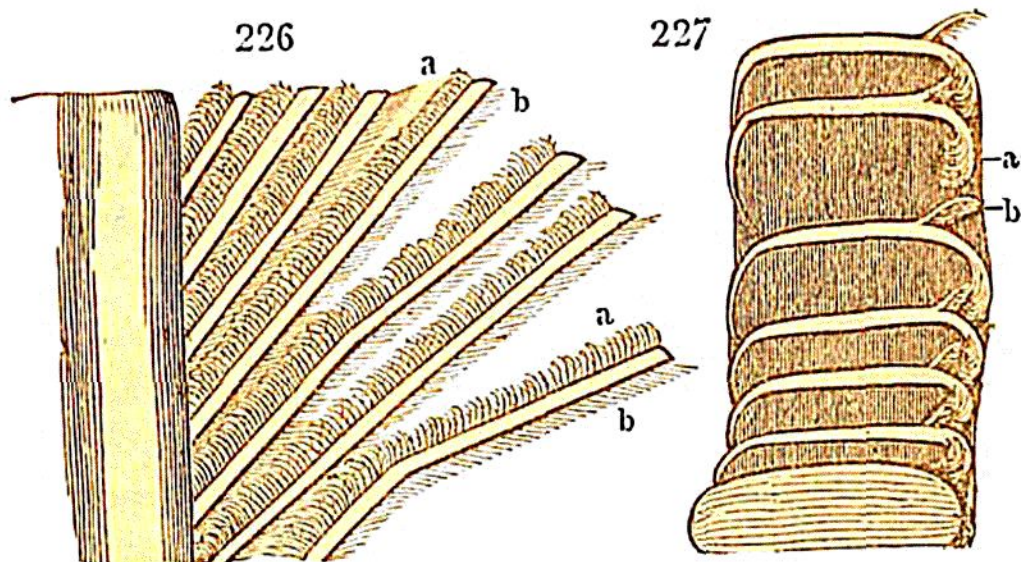


at a, a, b, b, Fig. 226, as they arise from the two sides of the edges of each lamina: they are exceedingly numerous, above a thousand being contained in the space of an inch;



and they are of two kinds, each kind having a different form and curvature. Those marked a, a, which arise from the side next to the extremity of the feather, are branched or tufted, and bend downwards, while those marked b, b, proceeding from the other side of the lamina, or that nearest the root of the feather, are shorter and firmer, and do not divide into branches, but are hooked at the extremities, and are directed upwards. When the two laminae are brought close to one another, the long, curved fibrils of the one being carried over the short and straight fibrils of the other, both sets become entangled together; their crooked ends fastening into one another, just as the latch of a door falls into the cavity of the catch which is fixed in the door-post to receive it. The way in which this takes place will be readily perceived by making a section of the vane of a feather across the laminae, and examining, with a good microscope, their cut edges, while they are gently separated from one another. The appearance they then present is exhibited in Fig. 227, which shows distinctly the form, direction, and relative positions of each set of fibrils, and the manner in which they lay hold of one another. This mechanism is repeated over every part of the feather, and constitutes a close-