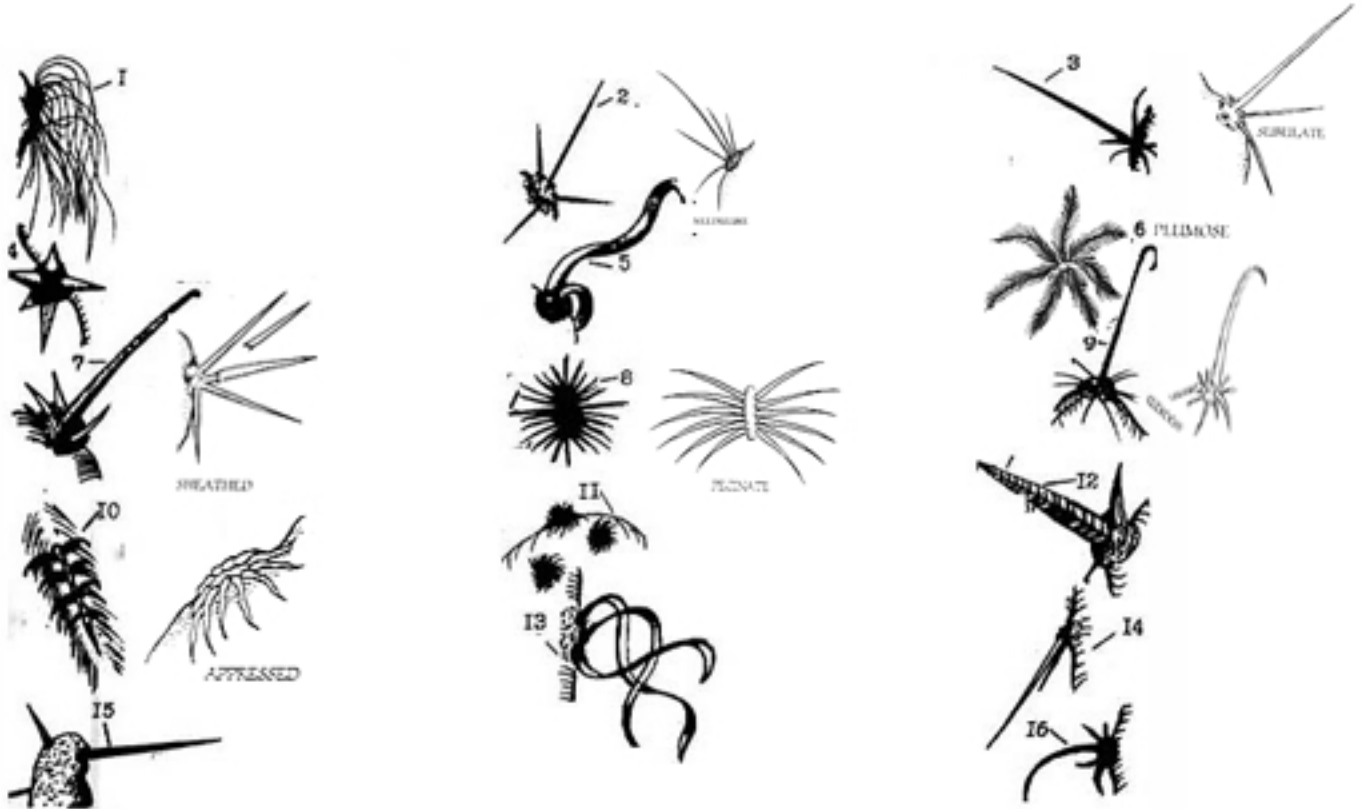


## Spine Formations



from <http://www.lapshin.org/cultivar/N28/spines-e.htm>

1. Bristled (*Cephalocereus senilis*)
2. Acicular (*Opuntia santa-rita*) - shaped like a needle.
3. Subulate (*Austrocylindropuntia subulata*)
4. Conical (*Cereus xanthocarpus*)
5. Tortuous (*Ferocactus acanthodes*) - twisted and curved
6. Plumose (*Mammillaria plumosa*) - feathery appearance
7. Sheathed (*Opuntia tunicata*)
8. Pectinate (*Solisia pectinata*) - comb-like
9. Hooked (*Ferocactus wislizenii*)
10. Appressed (*Gymnocalycium denudatum*) - pressed closely but not fused
11. Glochids (*Opuntia microdasys*)
12. Annulate (*Homalocephala texensis*) - with colored rings or ring-like segments
13. Paper-like (*Tephrocactus articulatus* v. *papyracanthus*)
14. Deflexed - Broadly bent downwards
15. Porrect (*Opuntia elata*) - Extending horizontally outward and forward
16. Down-curved

