

The intercellular spaces ordinarily met with in such tissue are present, but there is no evidence of the existence of lacunae.

SCLERENCHYMA.—It has been shown already that the sub-cortical zone is 1.5^{mm} thick. Within this region there are numerous oval or tangentially elongated bundles of sclerenchyma, which form long strands traversing the stem longitudinally for great distances (*figs. 1, 2, and 3*). These strands, which give the peculiarly striated appearance to the surface of the specimen wherever exposed, are always separated from one another by several large and thin walled parenchyma cells (*fig. 1*), which are seen to be very perfectly preserved in certain areas. The sclerenchymatous elements are always very thick walled in those strands which lie next the cortex (*fig. 3*), but become much thinner walled toward the center of the stem where they often appear to be in a formative condition. The strands are separated radially by rather wide areas of fundamental tissue (*fig. 2*), but in consequence of the general and great alteration in relative positions effected by compression, it is impossible to determine their original distribution. The radial distribution of these strands through a rather wide zone would seem to indicate that they may have been developed in more or less well defined concentric layers, a relation which is certainly implied by their distribution within certain areas (*fig. 2*). Beyond a limit of 1.5^{mm} from the surface the development of the strands appears to be wholly arrested.

VASCULAR BUNDLES.—The vascular bundles are not frequently represented, since in most cases they have been removed by decay, or other causes, and their former positions are then marked by the presence of rather broad, irregularly rounded openings of variable dimensions, which appear throughout the transverse section (*figs. 1, 2, and 3*), and particularly internal to the sclerenchyma zone. Occasionally the bundles are preserved in a very perfect manner, and exhibit all their essential structural features with great clearness (*fig. 1*). The outermost of the two bundles seen in *fig. 1*, when much enlarged (*fig. 4*), is found to consist of several broad scalariform ducts enclosed on two