Fig. 15. *Epithemioid* diatom. The potassium besides being irregularly distributed is found also in parallel arrangement under the test. × 680.

Fig. 16. Germinating spores of *Equisetum arvense*, *a*, earlier, *b* later stage. In both the potassium seems to diffuse in advance of the cytoplasm which forms the primary root-hair. × 250.

Fig. 17. *a*, *c* and *d* cells from the mesophyllous layer of the Easter lily, the nucleus with a faint pink reaction. *b*, collection of chlorophyll corpuscles from a cell which was subjected to the action of the reagent for so short a period as three minutes only, in order that they should be preserved intact for observation. × 680.

Fig. 18. Surface view of leaf of *Tulipa sp.* *a*, cells on a level with the stomatic cells but below the cuticular elements. × 1000.

Fig. 19. Mesophyllum of *Lilium Harrisii*, showing the potassium in connection, not only with the scanty protoplasm, but also with the cell walls. × 600.

Fig. 20. Mesophyllum of *L. Harrisii*, cell showing starch granules but a smaller quantity of potassium. × 600.

Fig. 21. Pollen grain of Tulip. × 680.

Figs. 22 and 23. Corpuscles of frog's blood. Fig. 22 white (? fusiform) corpuscle, Fig. 23 red corpuscles. In all the nuclei are free from potassium. × 1000.

Fig. 24. Bladder epithelium of frog, optical section of the cells. *b*, a cell, of a type occasionally found, in which the cytoplasm was rich in potassium. × 680.

Fig. 25. Cells from intestinal mucosa, frog. The potassium is shown on the periphery of each cell, not in the intercellular spaces, which appear free from it. × 680.

Fig. 26. Cells from the intestinal mucosa of *Ouiscus*. *n*, nucleus. The view represented is in a plane through the nuclei of the cells. × 340.

Fig. 27. Groups of cells from xiphioid cartilage of the frog. The matrix in this preparation was free from potassium salts. The distribution of the latter is indicated by the orange-yellow triple salt reaction. × 250.

Fig. 28. Smooth muscle fibres, frog's bladder. A faint reaction obtains in their cytoplasm. *a*, a superficial view of a portion of a fibre. × 680.

Fig. 29. *a*—*c*. Portions of muscle fibres, gastrocnemius, frog. In *a* the nucleus is free from potassium. *a* and *b*, × 1400, *c*, × 1830.

Fig. 30. Muscle fibrils. Wing muscles of scavenger beetle. *a*, resting, *b*, contracted. × 1380.

Fig. 31. Retina of frog. *a*, cone, free from potassium. *b* and *c*, lateral views of rods, *d*, end views of the rods, the substance of which gives a faint diffuse reaction for potassium. The potassium-holding particles which occur in *b* and *c* are shown in *d* to be between the rods. × 680.

Fig. 32. Retina of frog. *a*, element of the nuclear layer with peculiar potassium-holding arborescences on its surface. *b*, superficial view of rod with potassium in minute elongated granules, regularly disposed. *c*, optical section of a rod showing the occurrence of potassium at definite points and along definite lines. × 680.

Fig. 33 *a* and *b*. Acini of pancreas, guinea-pig, showing potassium limited to the neighbourhood of the lumina, and to a portion of the intercellular walls. × 1380.

Fig. 34. Nerve fibres, rat; *a*, showing the orange-yellow triple salt reaction at the node of Ranvier and also in a mass in the sheath adjacent to the fibre (axon) at an intermediate point. *b*, a portion of a nerve fibre showing the triple salt reaction in a not unusual distribution in the medulla. × 680.

Fig. 35. Nerve fibres, frog. *a* and *b* showing potassium-holding material at a node of Ranvier (*r*) as well as in the sheath immediately under the neurilemma, the free portion of the axon (*n*) showing absolutely no reaction.