

in their correct order; no objection could be raised against the order, only unfortunate chance had willed that the series had been begun at the wrong end, and that what were really cells in course of degeneration were thought to be cells in the course of development. The arrangement was right; the chronology was wrong. The opponents of experimental methods, the anti-vivisectionists, should learn from this what difficulties are presented by purely anatomical investigation; and to what gross and long-persisting fundamental errors they may lead."

These researches upon the development of the cells of the body and especially the study of the connective tissue cell in health and disease, and its embryological history, finally led Virchow to see that, nowhere do cells originate from a formless blastema, but that they always result from the division of previously existing cells, and he finally announced the fundamental truth of the cellular pathology in his famous modification of Harvey's dictum, *Omnis cellula e cellula*. It is difficult indeed to overestimate the far-reaching influence of this doctrine, not only for pathology, but for the whole of biology. With its recognition was swept away the whole system of the humoral pathologists and with it a crowd of other speculative hypotheses, and the investigation of disease was able to proceed upon a rational scientific path. By it was settled, or rather should have been settled, the question of spontaneous generation.

During all these years of work Virchow's position as a University teacher was undergoing considerable change; in 1848 he was sent by the Prussian Government to investigate the outbreak of typhus in Upper Silesia, and on his return he published a report such as few governments have ever received from one of their own officials. After a masterly discussion of the history and course of the disease, with its symptoms, pathological findings, and its treatment, he proceeds to discuss the cause of such an outbreak and the remedies to be used to prevent a recurrence.

And he does not in the slightest mince his words; he shows that the conditions which gave rise to the famine, and following it the fever, were: First, the stupidity of the whole group of Prussian officials in their bureaucratic methods of dealing with what was an alien Polish population, then the heartlessness of both the aristocracy of birth and of money in the treatment of their tenants and their workpeople, and lastly in the attitude of the Roman Catholic hierarchy, which had kept the peasants in the deepest ignorance. His remedy was characteristic, "Democracy, pure and unalloyed." His suggestion that the education of these people should be begun by giving them Polish schools, and that they should not attempt to Germanize them by insisting on German schools, is of interest at the present day, in view of the troubles that the Government of Germany is still having in this very district. His