

Arabic", and by lecturing in German "sent a new thrill through the untaught bosoms of the people". It was probably from the East that Paracelsus derived his doctrine of the Archæus, the determining force of life, the "spiritus rector" of the body, the "vital force" of later days. It was an early expression of the fact which still confronts us, that the organism has a secret!

Paracelsus did not achieve much, but to him, and to his follower Van Helmont (1577-1644), who invented the word *gas*, and suggested the theory of digestion by ferments, was largely due the overthrow of the Aristotelian and Galenian traditions which had outlived their usefulness.

Thus Paracelsus gave a death-blow to the old pathological doctrine of the four "humours". The revival of the study of anatomy by men like Andreas Vesalius (of Wesel), and Fabricius, whose names are perpetuated in connection with various organs of man and animals, was another factor in progress. Throughout the long history, anatomy has again and again proved the sheet-anchor which has kept physiology in safety.

The doctrines of Aristotle and Galen—valuable for their age—had gradually become an inhibiting dogma, and the strength of tradition often broke the young spirit of discovery. It is to Harvey (1578-1657) that we must give the credit of inaugurating a new epoch of observation and experiment. It was not merely that he demonstrated the circulation of the blood, and analysed out some of the dynamic factors in the flow; it was his careful method of observing and experimenting, instead of guessing and theorizing, that gave him his high historical import. He comes into line with Copernicus and Galileo, Bacon and Descartes, and the other founders of the scientific method.

The return to observation and experiment, which we associate with the name of Harvey, was rapidly rewarded by many discoveries. Some idea of the dignity of the subject began to dawn in the minds of workers, and it soon became necessary to gather what was securely known into a system—better than that of Galen. This was achieved

Physiology
comes of
age as a
Specialism.