$\mathbf{l}\mathbf{y}$ 

alt At

 $\mathbf{nd}$ 

on

is ly

ne

st

It

)r.

d,

or

ey old

er, ot

at

gs

on

rer

y's .ch

16.

en

, it he

ng dis

ars

of

 $\mathbf{ve}$ 

years too soon. Neither could Shakespeare's son in-law, Dr. Hall of Stratford-on-Avon, have told him of it, as some have thoughtlessly suggested he might. For one thing, Hall did not marry Shakespeare's daughter until 1607. Some uncritical writers have assumed that Shakespeare must have known of the circulation of the blood because he was a contemporary of Harvey. The two great men may never have met. Harvey was a student of medicine at Padua from 1598 to 1602, the very time when Shakespeare was at the height of his activity. But even if they did meet, the young doctor was not in the least likely to discuss with the great actor his revolutionary view of a matter of pure physiology. If Harvey discussed so technical a subject before he gave it to the world, it would be exclusively with his medical brethren. We should expect from a priori considerations, without examining Shakespeare's works at all, that their author was not acquainted with the new views concerning the circulation of the blood. A close examination of these writings confirms this in the fullest manner.

If Shakespeare then did not know the Harveian doctrine, what view did he know? The reply is that he evidently held the views which had been taught in the medical schools of Europe for 1400 years, the views of Claudius Galen, that great dictator in all matters medical.

The Galenical notions of the movement of the blood can be understood only after still earlier views are comprehended.

The distinction between arteries and veins was made before even the time of Aristotle. Shortly after the death of Aristotle, Erasistratus (300 B.C.) of Alexandria taught that blood for the nourishing of the body travelled up and down the veins only; whereas in the arteries "vital spirits" alone v re found. Erasistratus thought that arteries during life did not contain blood because after death arteries are found to be empty. Galen made the discovery by vivisectional methods that the arteries contain blood during life. Accord-