sought. Thereafter, I would pay attention to the difference between the man's weight and the animal's weight [when the man and the animal were] outside the water. And in accordance therewith I would adjust what I found out and would write it down.

168 *Orator:* I don't understand this [notion of] adjusting.

"I will show you," said [the Layman]. And taking a piece of light wood, whose weight was, say, three pounds, and the weight of water of the same magnitude being, say, five pounds, he divided the wood into two unequal parts, one of which had twice the size of the other. He placed both parts into a deep cask and held them down with a stick and poured the water over them. And when he withdrew the stick, the pieces of wood rose to the surface of the water, and the larger piece rose more quickly than did the smaller piece. "Look!" he said. "You see that the difference of motion occurs, in a sameness of proportion, from the fact that in the [two] pieces of light wood greater lightness is present in the larger piece."

Orator: I see and am greatly pleased.

Layman: In a like way, I say that an adjusting must be made. For if because of his size a man were to have more heaviness than an animal, then in water he would sink more quickly than would an animal of the same proportion.[9] Therefore, it would then be necessary that an adjusting of the ascertained difference be made by making a proportional reduction in accordance with the discrepant size.

169 *Orator:* Now I understand. But tell me how it is that the water resists the wood's sinking.

Layman: [It resists] as the more heavy [resists] the less heavy. Therefore, suppose you press a piece of round wood [all the way] into a piece of wax, remove the wood, fill the depression with water, and note the weight of both the water and the wood. You will find (1) that if the weight of the wood exceeds the weight of the water, the wood will sink but (2) that if [the weight of the wood does] not [thus exceed], the wood will float and a part of the wood will remain above the water in proportion to the greater weight of the water over the weight of the wood.

Orator: Why do you specify a piece of *round* wood?

Layman: If [the piece of wood] is of a wide shape, it will displace more of the water and will float higher up [in the water]. This is the reason that ships in shallow waters ought to have a fairly wide bottom.

170 *Orator:* Continue with what was begun. [Tell me] whether the