FINGER IN THE GLASS
Two glasses filled with water are balanced on a scale, as shown. What happens to the scale when you stick your finger in one of the glasses? Will that side of the balance tip, as if it were heavier?
How would the result change if your finger were made of heavy metal?

Answer
When you stick your finger water, your finger takes the place of some of the water, and so the water level goes up. Your finger not only takes the place of the water but also stands in for the weight of that water. The glass weighs more, by the weight of that displaced water. The weight of the object displacing the water is not a factor; it could be a balloon or a lead cylinder.